The

PILOT RADIO

TRADE MARK

A Vintage Radio MONOGRAPH

by

D. H. MOORE

The
Vintage Radio
Foundation®

P.O. BOX 521
PALO ALTO, CALIFORNIA
94302

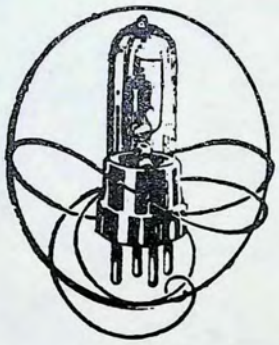
© D.H.MOORE, 1954/1985

ALL RIGHTS RESERVED UNDER INTERNATIONAL AND PAN-AMERICAN COPYRIGHT CONVENTIONS, INCLUDING TRANSLATION INTO SCANDANAVIAN LANGUAGES. REPRODUCTION IN ANY FORM IS EXPRESSLY FORBIDDEN WITHOUT EXPRESS PERMISSION FROM THE AUTHOR.

Beyond Rider!

DEDICATION

...to a way of life - that should not have been forgotten.



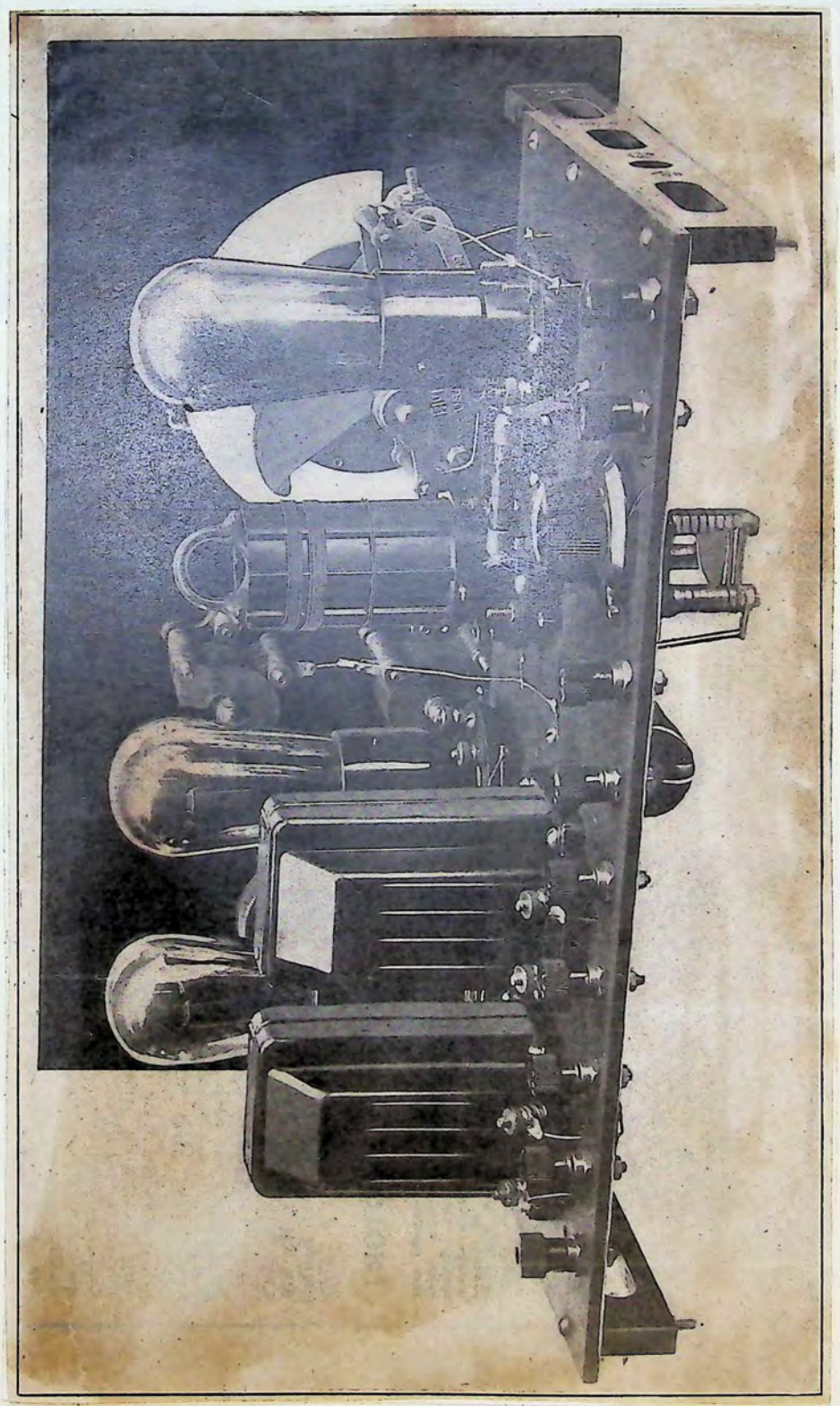
The fun of Radio is in doing it yourself

Autographed Edition

It is my sincerest wish that this latest contribution of my vintage radio writings may afford you as much enjoyment and usefulness as I've had in compiling it.

Over to you, and 73,

Palo Alto



Preface..... 1

"Air-Hound"..... 34
"Air-Scout AC..... 23
AC Short-Wave Converter..... 32
AC-Three BC Receiver..... 40

"DeLuxe AC"..... 13
"Dragon SW Converter..... 67
"Dragon" SW Receiver..... 68
Dual Midget TRF..... 66

First Commercial TV Note..... 92

Geloso Ham Gear.....103

Improved S.G. 105..... 57

Jumbo A-B-C Power Pack..... 76

K-106 BC Receiver..... 37
K-108 BC Receiver..... 58
K-111 B-Eliminator..... 75
K-113 Power Amplifier..... 77

"Little Pal"..... 34

Merle Dustin..... 93
Browning-Drake..... 95
Universal 2-Tube Reflex..... 97
Universal 3-Tube Reflex..... 98

Midget Pilot Configurations..... 65

P-E-6 S.G. BC Receiver..... 63
PILOT Adverts..... 99

One-Seventy-One Power Supplies.. 81

"Pilotone Universal"..... 9
"Pilotone Electric"..... 38
"Pilotone" 3-Tube Regenerative.. 11
Pilot-Grimes "New Yorker"..... 12
P-P Power Amplifier..... 84

Regenerative SW Receiver..... 54
Representative PILOT Parts..... 86

Six Tube TRF..... 27
Screen-Grid 105..... 55
"Super-Six"..... 35
"Simple" Power Supply..... 80
"Super-Wasp"..... 42

Two-Fifty-Two Power Amplifier..... 82
Three-X-P "Wasp"..... 31

Universal Jumco B-Eliminator..... 74
Universal "Super-Wasp"..... 59
Universal SW Receiver..... 3

"Wasp"..... 28

* * *
* *
*

PREFACE

The PILOT ELECTRIC COMPANY began business in 1908, supplying electrical hardware to the trade. They did not become involved in the radio marketplace until after Isidor Goldberg became president, 1925, after serving a stint with Hugo Gernsback.

Goldberg was another of the Gernsback alumni who went on to bigger and better things in Radio. His exposure to Gernsback's empire undoubtedly coloured his thinking about Radio when he set about to in effect, completely re-orient PILOT's role in the marketplace.

Beginning with the production of radio hardware, accessories and in time "Radio Design" medium, by the end of the Twenties claims to being the "world's largest radio parts manufacturer" were never at any time challenged. PILOT began by producing items for the home-constructor - rheostats, variable condensers, switches, plug-in coils, a series of drum-dials, sub-panel brackets, etc. It must be stated that some of the earlier components were not skillfully done. Their early variables, for example, were poorly finished and prone to mis-alignment of plates. Then, it seems, Goldberg discovered "Bakelite", which could always be found in PILOT's redesigned components.

With the advent of the PILOT "Wasp" short-wave receiver, the company was on its way to being noticed world-wide. It began actually in 1926 when Goldberg asked Merle Duston, Detroit, to design a 5-tube TRF that could be packaged as a kit - PILOT's first - and retailed in such shops as Kresge, Kress, Woolworth, for $18. This was designated the "Pilotone". In 1929 PILOT released the "Pilotone Universal" which was an electrified version of the 1926 job. Still a neat package.

Kitted radios dominated PILOT's efforts until the end of the Twenties, with the "Super Wasp" a remarkable acheivement. Goldberg is creditted with pulling in such talent as Kruse, Geloso, Sleeper, and Grimes to advance PILOT's cause. Sleeper's "Redi-Blox" concept was an advance for every novice in the game, and may have been inspired from the facility of the old "Erector Set" concept. Anyway, it worked.

PILOT hardware and accessories were among the best made, and well-deserving of their high repute. The PILOT company continued well into the Hi-Fi era, but like many another pioneer firm, their glory passed with the coming of standardised chassis and circuitry. In consequince, this MONOGRAPH deals with all earlier configuration radios, up to the advent of the "Dragon All-Wave".

PILOT "UNIVERSAL" RECEIVER, 1926

The PILOT "Universal" receiver kit was the first offering by PILOT after Goldberg became president of the company. It was designed by Merle Duston, and was unique among kits of the period in that the home-constructor could build any one of five circuits: a 3-circuit, 3-tube regenerative set; a 5-tube TRF with ganged variables; a regenerative SW receiver; a 3-tube reflex - or a 3-tube reflex with a tube detector, instead of the usual crystal. The following pages detail the short-wave circuit and the 5-tube TRF.

The first kit called for a basket-weave tuner in the ANT circuit, that was quickly supplanted by the newly produced PILOT variables before the year was out. Contrary to custom , the two variables did not track even approximately. The LH dial was the Station Selector; the RH dial was the regeneration control.

For the 3-tube SW set PILOT specified the SW coil set made by the Twin Coupler Company in upstate New York - a German cutlery firm subsiderary at Poughkeepsie. The set consisted of four air-wound coils and retailed for $10. Original Twin Coupler coils are scarce, so I have included complete data for winding your own in the following pages.

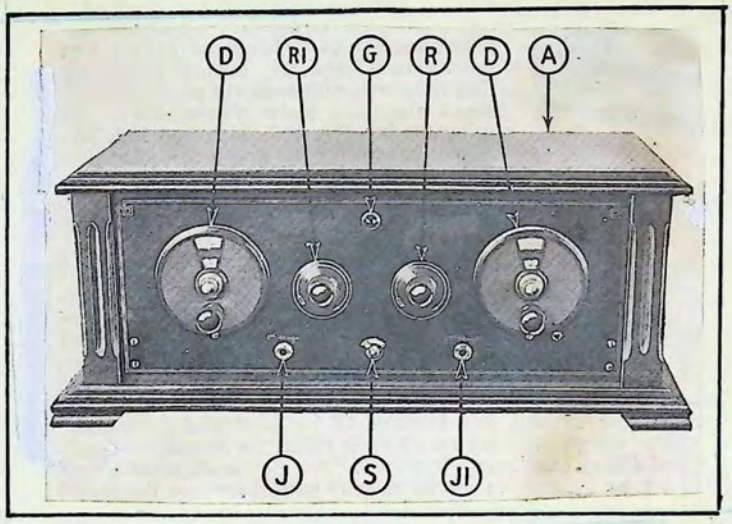
In the 5-tube version the pilot lamp was deleted and replaced by a midget variable, .000025 MFD, called a "Compensator" by PILOT. While a 17" panel was specified for both the SW and 5-tube versions, I would strongly recommend that you use a 24" panel for the TRF. There is one caution, however:

Care must be taken to prevent the DET tube from oscillating. If it squeals and whistles, you'll not only consume excessive B-current, but you will also wipe put radio and TV reception of your neighbours. In other words, the oscillating DET tube radiates over a very large area. A 75' aerial (antenna) is recommended; a GND may or not improve reception; and best reception will be found with between 16 and 45 volts on the DET plate.

Lack of regeneration may be due to reversed tickler connections, low DET voltage, open plate coil winding, poor DET tube, or open connexion at the variables: check them all. Distortion by a continuous whistle indicates that a .00025 or .0005 MFD condenser should be placed across both terminals of one of the AF transformers; this is best determined by placing your fingers across one pair of terminals at a time. When the whistle disappears when your fingers bridge a pair of terminals, those will be the terminals to use.

* * *

PILOT "UNIVERSAL" SW RECEIVER, 1926



A = Mahogany Cabinet
R, R1 - FIL Rheostats
S = FIL Switch
D = Tuning Dials
G = Pilot Lamp
J, J1 = AF Jacks

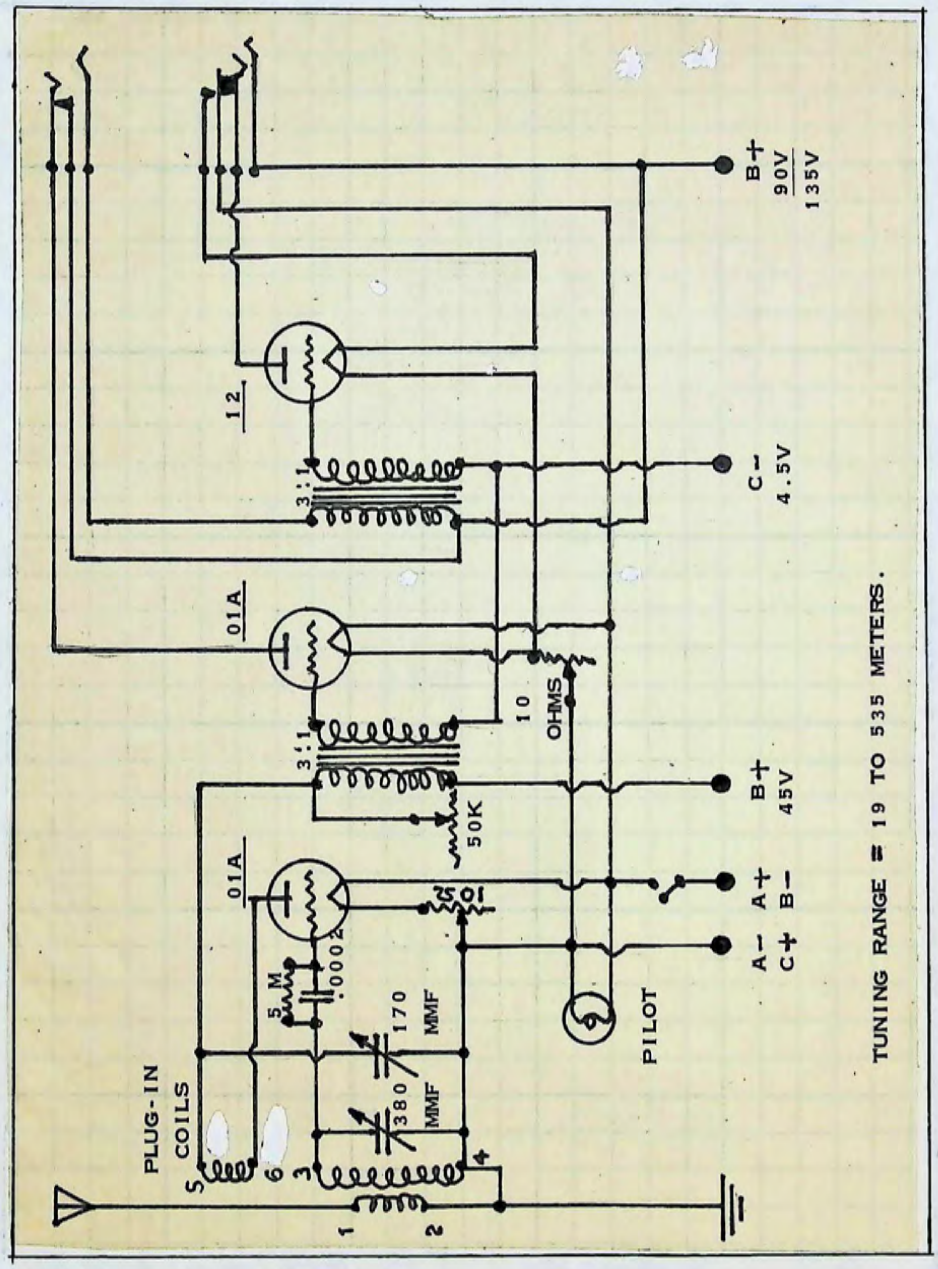
ORIGINAL PARTS LIST; PILOT:

ANT Coil; RF Coils: Twin Coupler.
170 mmf Variable.
300 mmf Variable.
.00004 Grid Condenser
7M-ohms Grid-Leak.
20-ohm Rheostat.
10-ohm Rheostat.
AF Transformers (2).
UX Sockets (3).
Double Circuit Jack.
Single Circuit Jack.
Binding Posts (9).
FIL Switch.
Pilot Lamp, 6V.
Vernier Dials (2).
Panel = 7" x 18" x 3/16".
Sub-Panel = 7" x 17" x 3/16".
Brackets to suit (2).
Mahogany Cabinet - $7.50.

NOTE:

While a complete list of parts is shown, PILOT did not offer coils, or variable condensers as parts of the kit.

DUSTIN "PILOTONE" SW. RECEIVER, 1926: Sht. 1



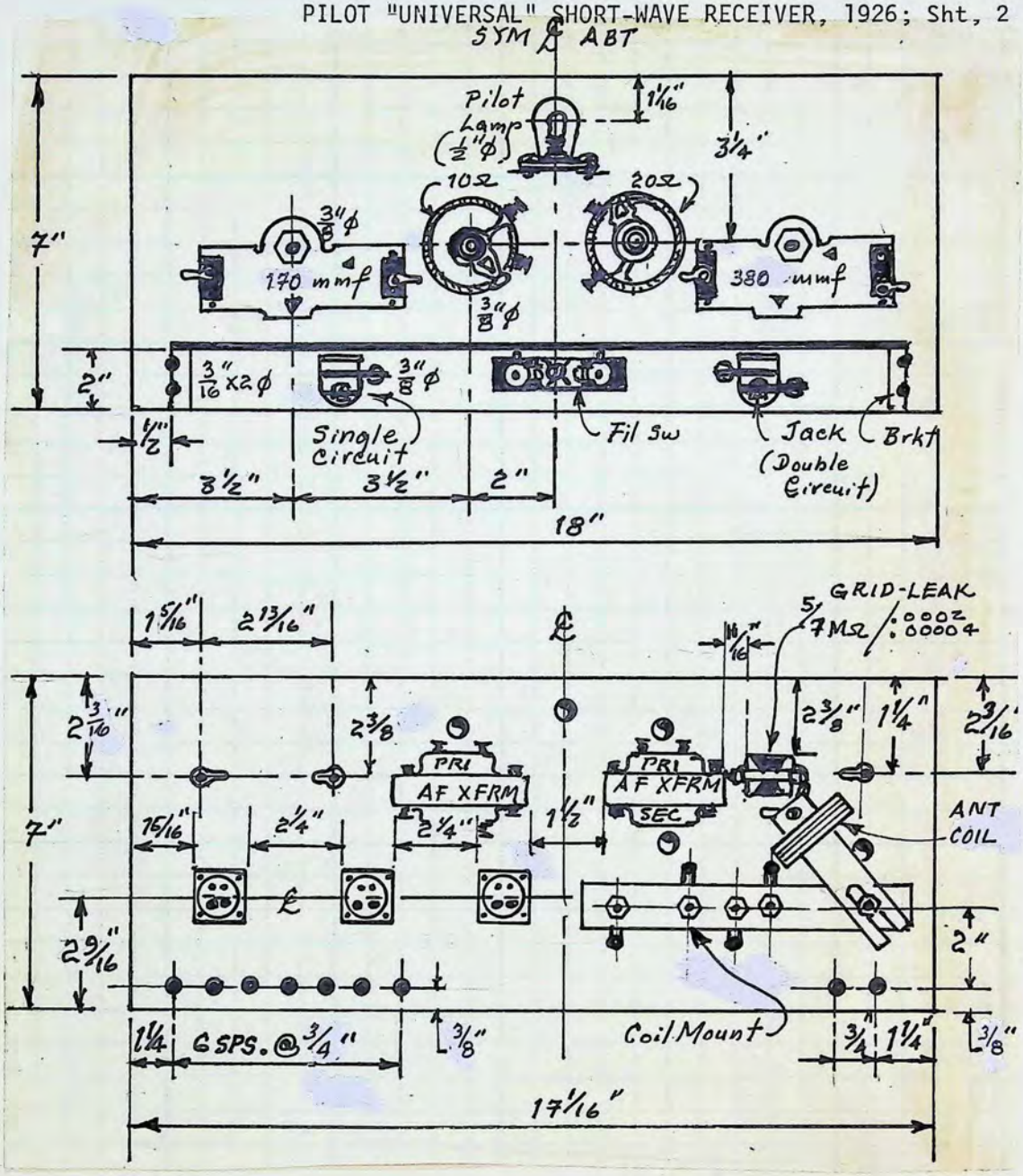
TUNING RANGE = 19 TO 535 METERS.

170 MMF - 8 PLATES.

380 MMF - 17 PLATES.

THIS WAS THE PRECURSOR TO THE PILOT "WASP". REFER TO PAGE 6 FOR COIL WINDING DATA. THIS WAS DUSTON'S SIMPLEST CIRCUIT.

PILOT "UNIVERSAL" SHORT-WAVE RECEIVER, 1926; Sht, 2



SUB-PANEL LAYOUT

COIL MOUNT IS SHOWN IN AN APPROXIMATE LOCATION - IT MAY BE ALTERED TO SUIT. CONVENTIONAL PLUG-IN COILS MAY BE USED.

(RN 2-27)

PILOT "UNIVERSAL" SW RECEIVER, 1926

COIL DATA

Coil No.	SEC	TICK	Space	Range
1	6T	3T	1T	18 - 50 Meters
2	13T	4-5T	1T	27 - 104 "
3	36T	5-6T	1T	25 - 220 "
4	80T	11-13T	6T	226 - 550 "

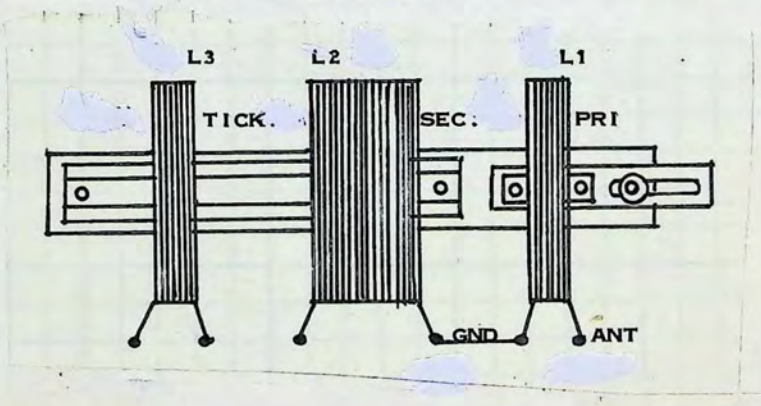
All coils wound with #18 SCC wire, except No. 4 - #24 DSC.
ANT coil wound with 8 to 10 turns, #18 SCC wire.
All coils wound on a 3" Ø form, as described below.

TO AIR-WIND COILS:

Take a cardboard tube slightly less than 3" Ø.
Wrap several layers of waxed paper around it.
Wind coils as described above.
Coat wrapt coils with collodian and let dry.
Pull out waxed paper from under windings.
Slip coil off of cardboard tube.
Coil is now free-standing.

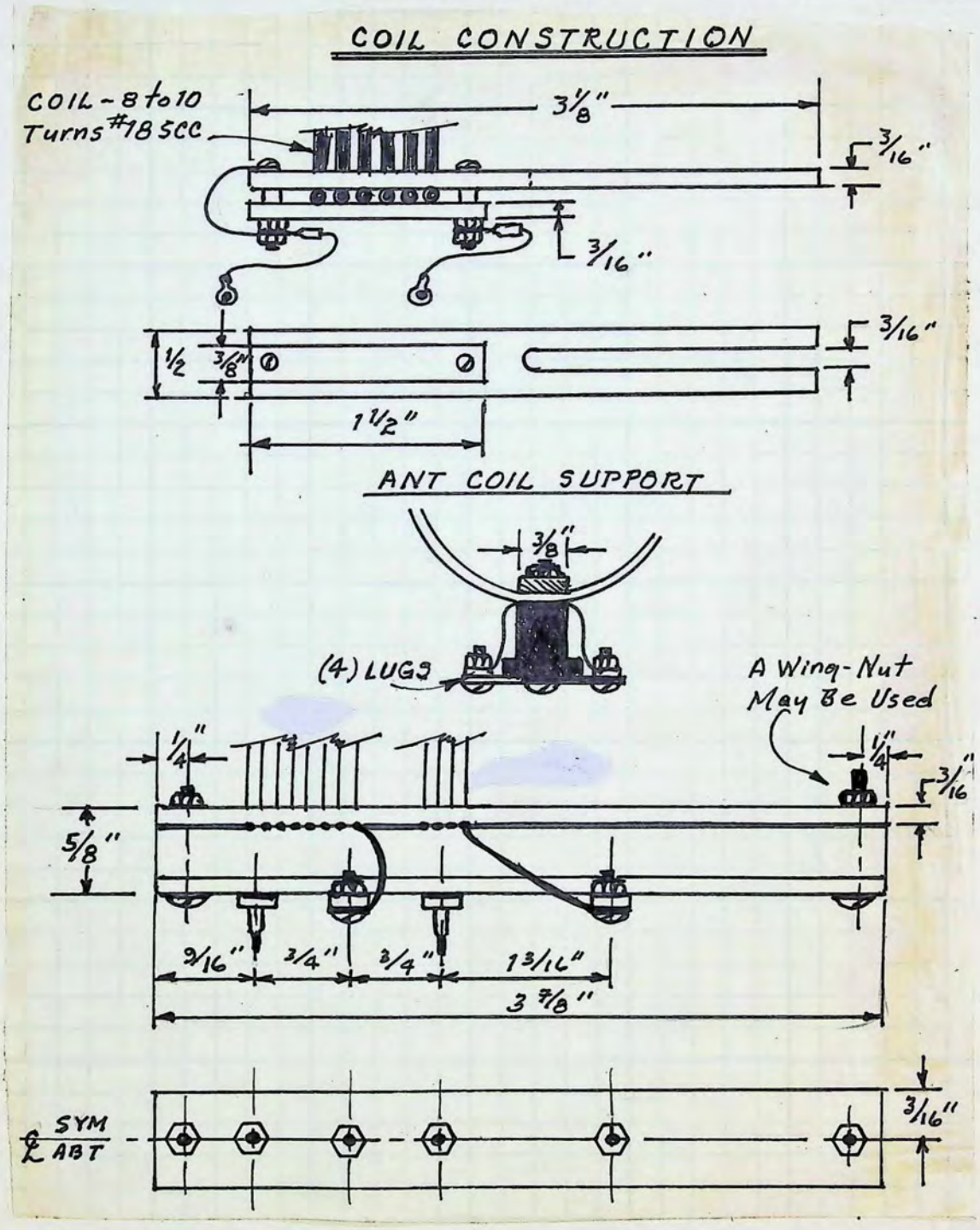
* * *

COIL DATA - PLAN VIEW

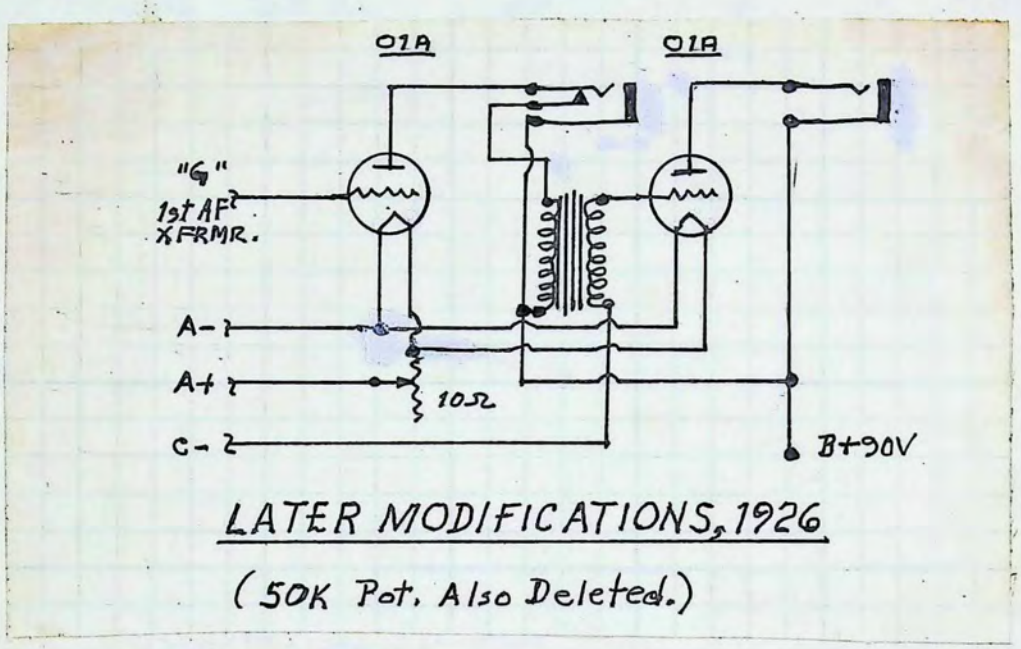


ALTERNATIVE COIL DATA = CELLULOID FORM 3.5" Ø X 12" LONG. WIND ALL COILS ON THE FORM, THEN SEPERATE WITH A SHARP KNIFE. PRI IS FIXED FOR ALL COILS 8 TURNS, NO. 18 WIRE.

PILOT "UNIVERSAL" SHORT-WAVE RECEIVER, 1926; Sht. 4



PILOT "UNIVERSAL" SHORT-WAVE RECEIVER, 1926;Sht. 5



This modification was simply replacing the 4-point second AF stage jack, as shown; and rewiring the filament of the last AF tube. The 12 tube was replaced with an 01A. The gain, if any, was simpler construction.

PILOT "PILOTONE UNIVERSAL" 5-TUBE TRF, 1926; Sht. 1

The standardisation of the "Pilotone" panel for all versions naturally held down production costs, thus allowing the kits to be sold for the modest sum of $18. The popularity of the "Pilotone" sets led to an AC version, the "Pilotone Electric, which you will find detailed on Page 38.

PARTS LIST

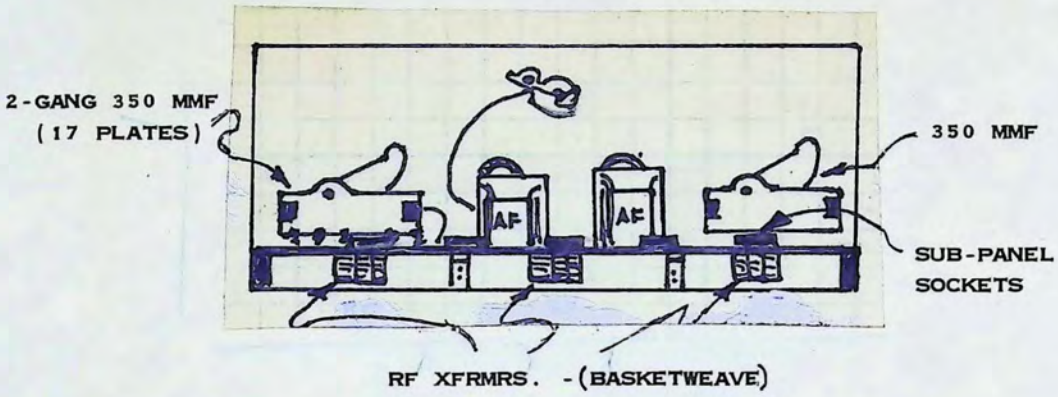
Panel = 7" x 18".

PILOT Vernier Dials (2).
PILOT 10-ohm Potentiometer.
PILOT 3-point Jack.
PILOT AF Transformers (2).
EBY Binding Posts (9).
PILOT Grid-Leak 5M-ohms.

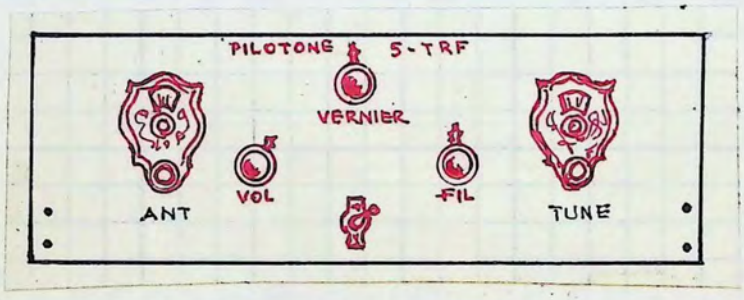
Sub-Panel = 7" x 17" x ½".

PILOT 10-ohm Rheostat
PILOT Sub-Panel Brackets (2).
PILOT 4-point Jack.
PILOT Pilot Light.
PILOT 700-ohm Resistors (2).
Capacitors .006, .002, .00025 mfd.

PILOT "PILOTONE UNIVERSAL" 5-TUBE TRF, 1926; Sht. 2



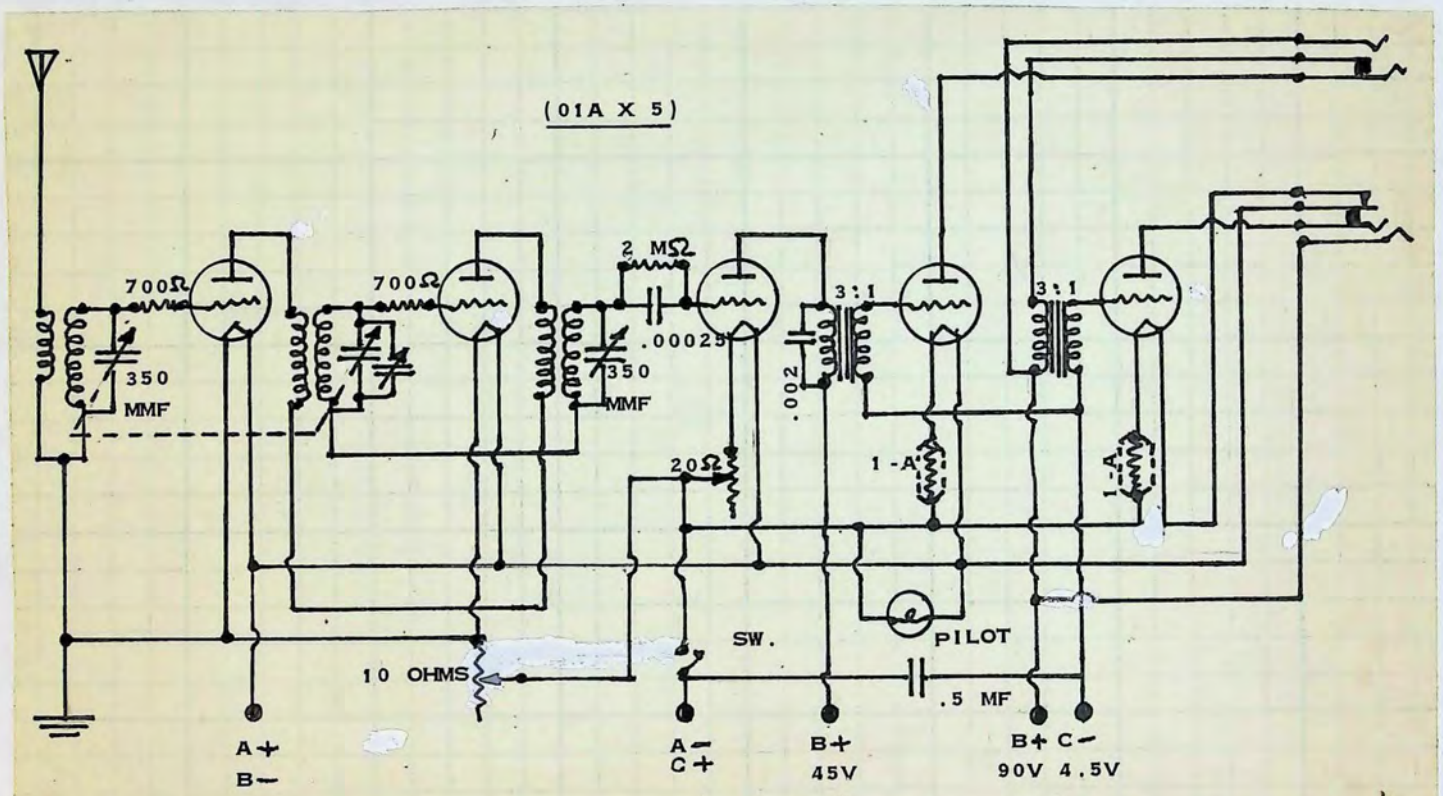
CHASSIS - REAR VIEW



A LATER KIT CONFIGURATION, 1927: $35

PILOT "CENTRALINE" 350 MMF VARIABLES.
7-PLATE MIDGET VARIABLE. PILOT BAKELITE BRACKETS.
BABY BASKETWEAVE RF COILS (3).
PILOT AF XFRMRS. (2). 4-OHM RHEOSTAT.
(ADAPTABLE TO AC.)

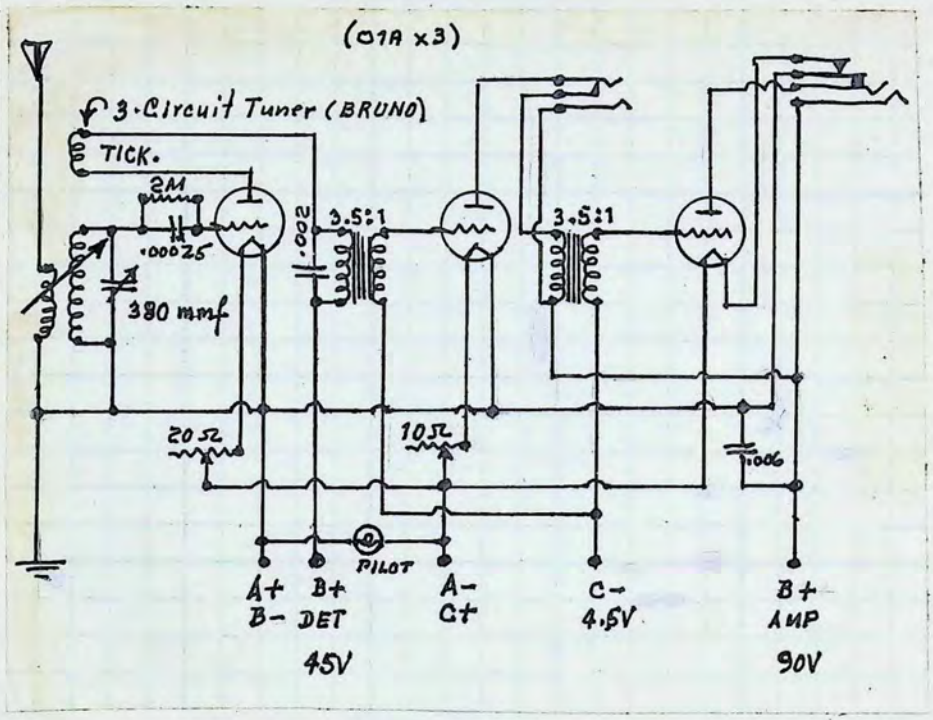
PILOT "PILOTONE UNIVERSAL" 5-TUBE TRF, 1926: Sht.



NOTES. GRID-LEAK MOUNTED ON TUBE BASE.
700-OHMS RESISTORS MOUNTED ON TERMINAL BASE OF GRID.
.002 MF CAP. MOUNTED ON DETECTOR BASE.
ORIGINAL PRICE $18.

NOTES

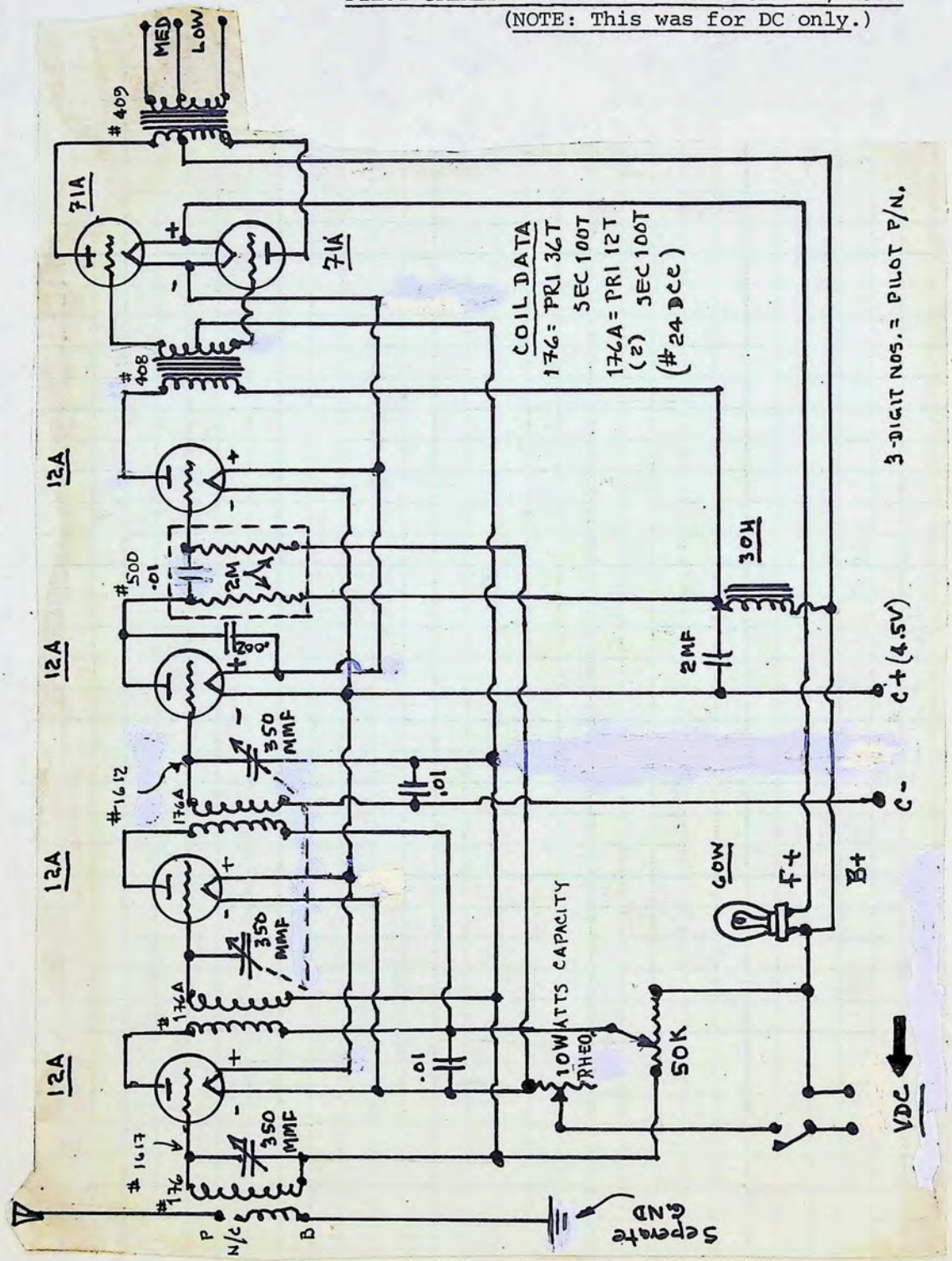
"PILOTONE" 3-TUBE REGENERATIVE RECEIVER, 1925



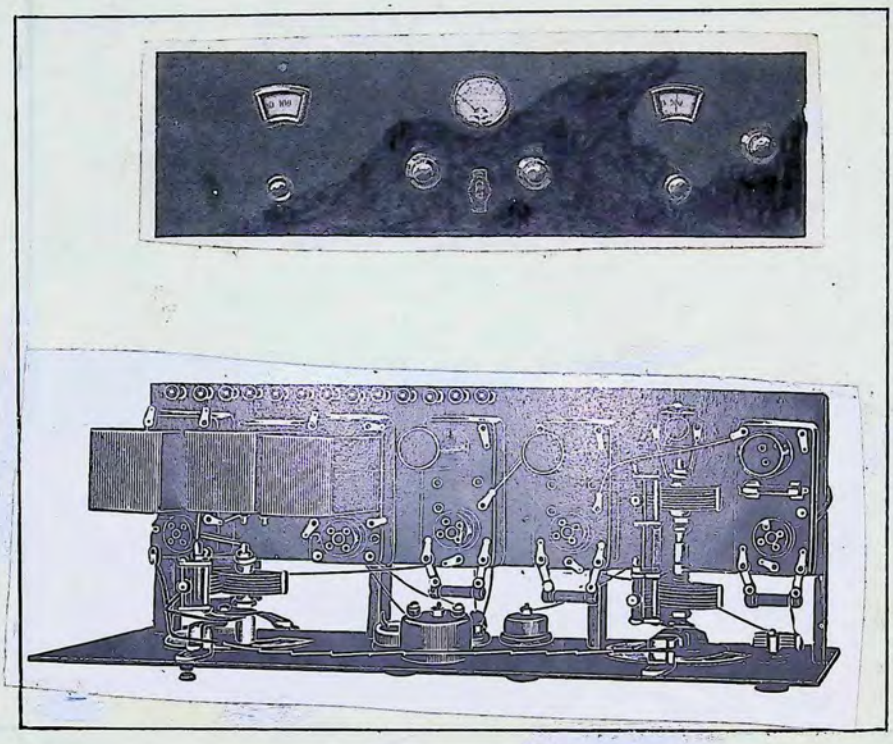
ALL PARTS, COMPONENTS, & VALUES ARE THE SAME AS FOR THE OTHER "PILOTONE" RECEIVERS.

It is indeterminate whether this circuit preceded Duston's SW circuit shown on Page 6, but the parts shown were included in the "Pilotone" kit a year later, with the exception of the BRUNO 3-circuit tuner, which replaced the plug-in coils. You will note that the range of this set was for the broadcast band only. If you construct this circuit, you might like to experiment with replacing the BRUNO tuner with plug-in coils, and comparing the results with those gotten from Duston's SW circuit. Of such subtle things was the early fascination of Radio made.

PILOT-GRIMES "NEW YORKER" DC RECEIVER, 1927
(NOTE: This was for DC only.)



PILOT "DeLUXE" AC RECEIVER,1927; Sht. 1



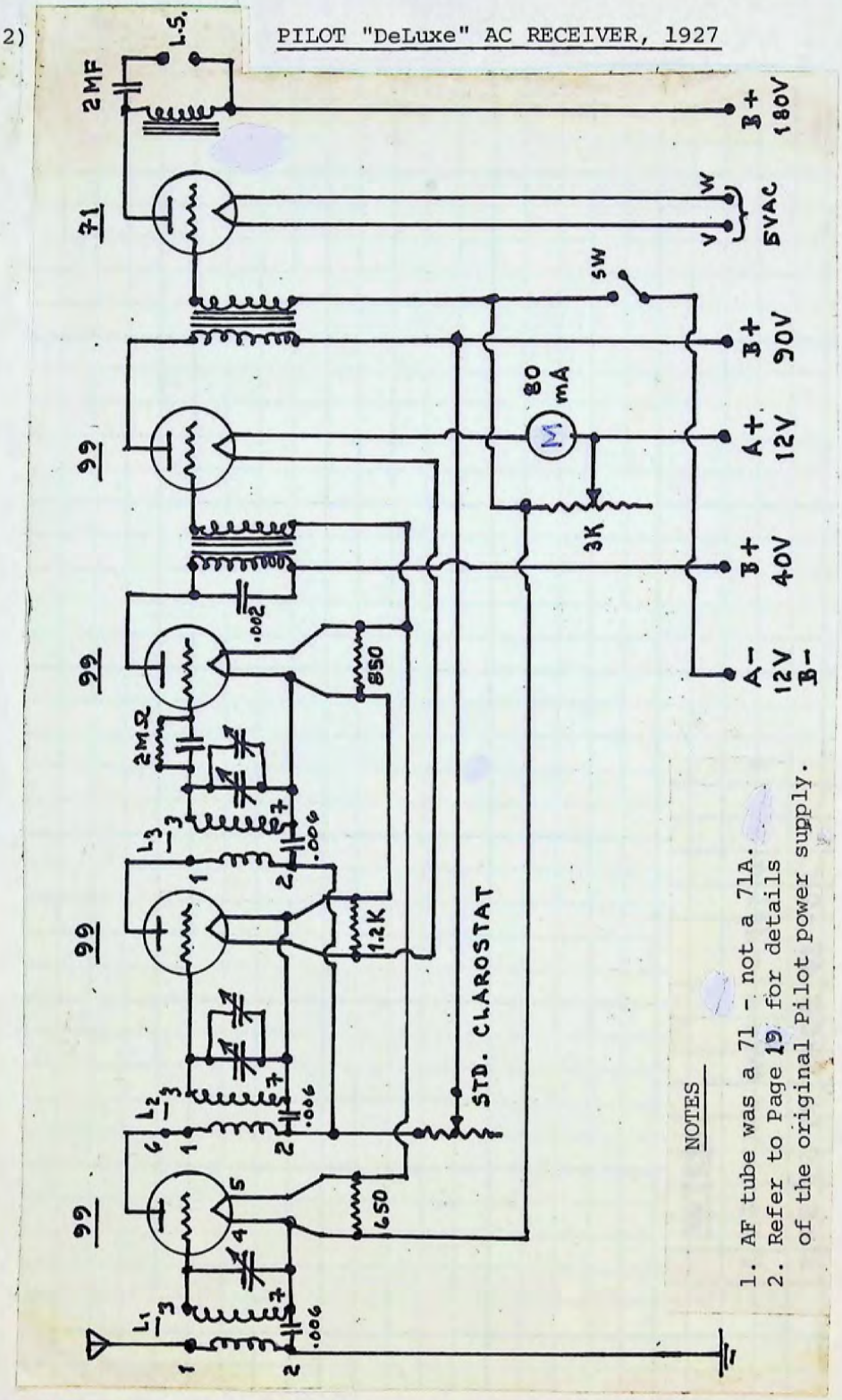
While the PILOT *Super-Wasp* seems to be the most popular circuit among old radio buffs, this particular set retains its original allure for me. I have constructed it from scratch, and have always been pleased with the results. I have to thank Bob Herbig, W6ME, for finding the original data for me.

The dial window holes were set by the Mar-Co templates, which you will find drawn to scale in Vol. VII. Normal rheostat reading was 60 mA. The VOL control can bring the reading below 60, and then the rheostat should be re-adjusted. Range was 190-555 meters with original PILOT coils. Tubes could be switched a full cricuit from series to parallel, if desired.

The 71 AF tube specified can be replaced with a 71A, if you prefer. Incidentally, the panel switch operates the pilot - the set power switch is on the PILOT power supply - *q.v.*

(Sht. 2)

PILOT "DeLuxe" AC RECEIVER, 1927

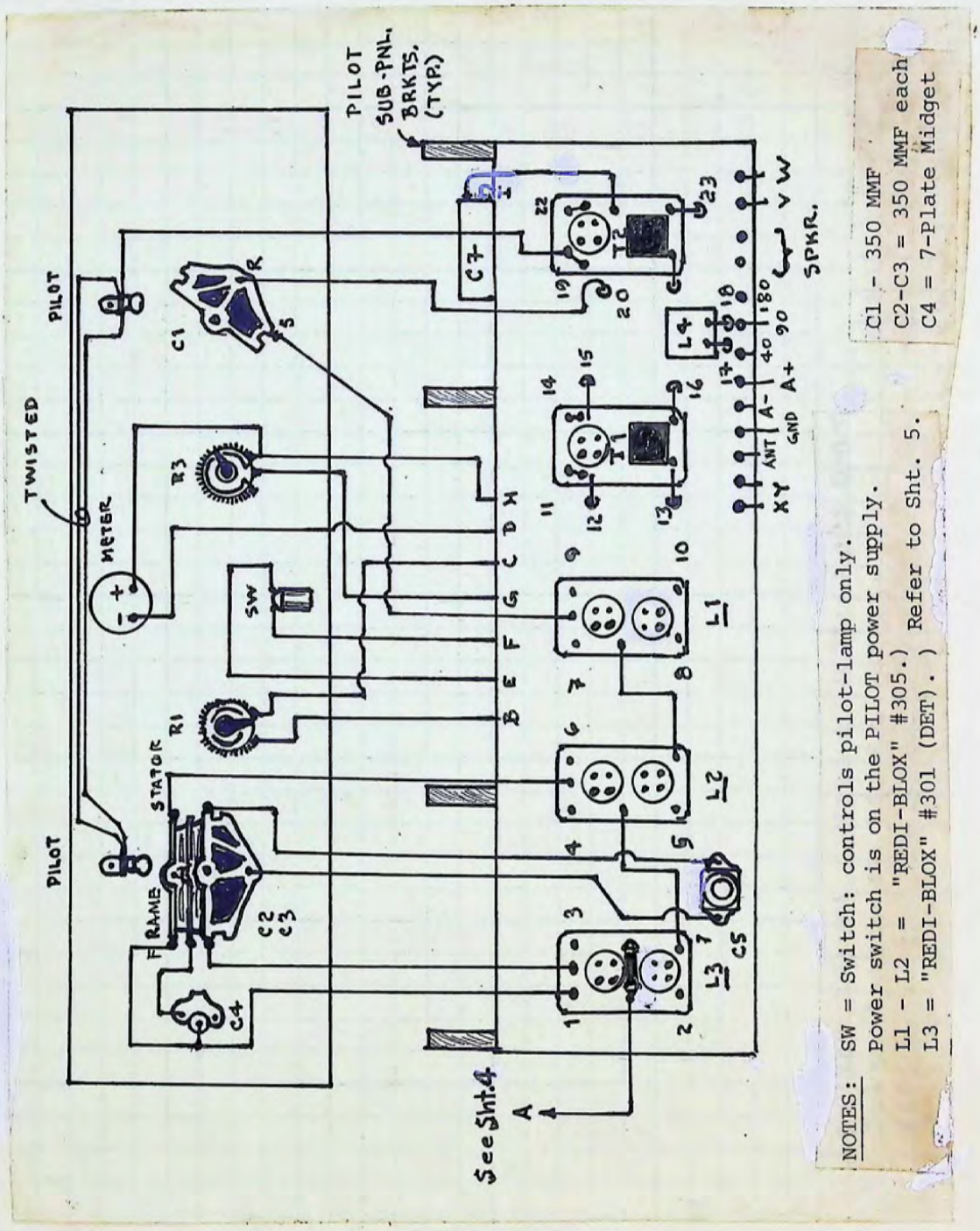


NOTES

1. AF tube was a 71 - not a 71A.
2. Refer to Page 19 for details of the original Pilot power supply.

(Sht. 3)

PILOT "DeLuxe" AC RECEIVER, 1927

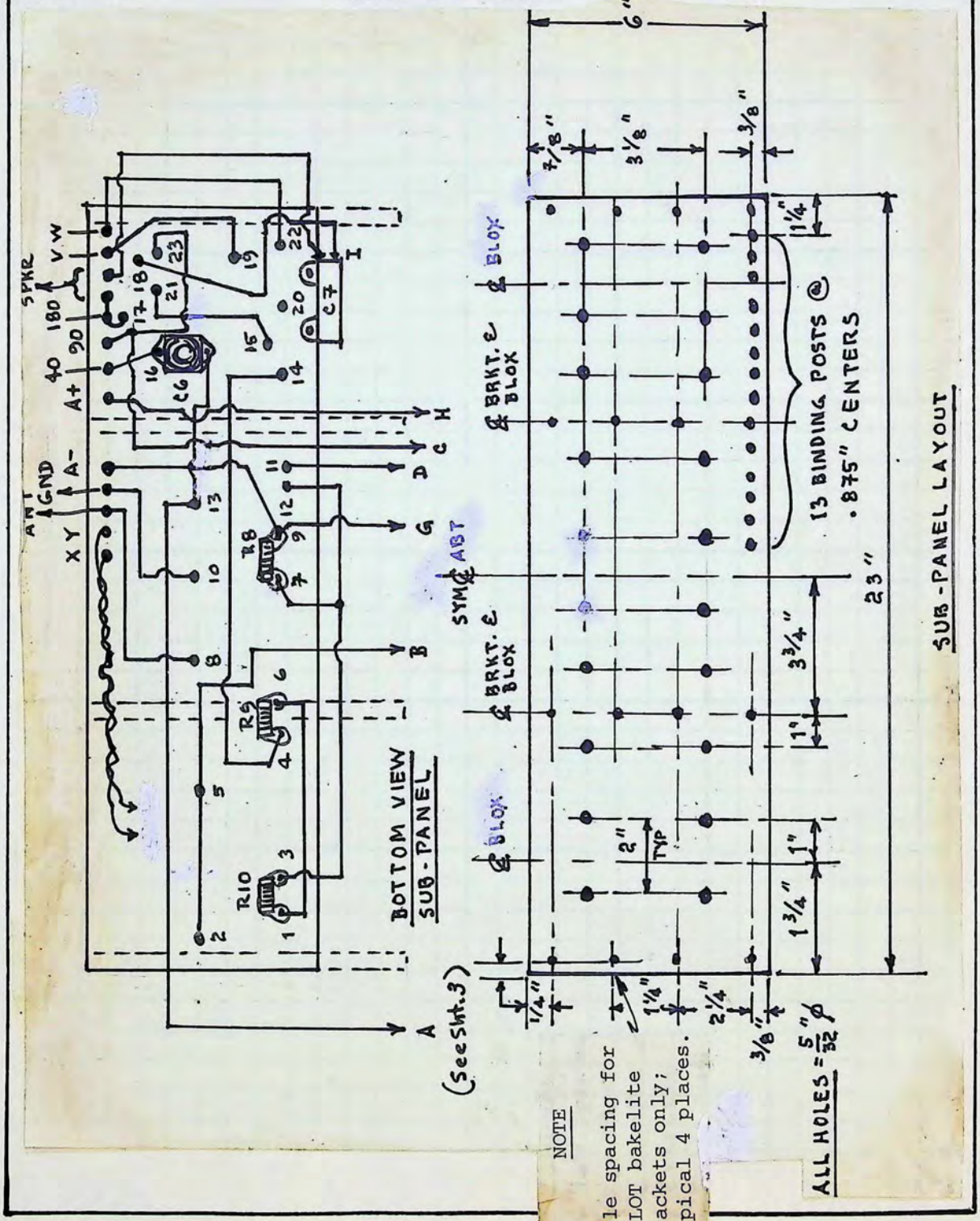


C1 - 350 MMF
C2-C3 = 350 MMF each
C4 = 7-Plate Midget

NOTES: SW = Switch: controls pilot-lamp only.
Power switch is on the PILOT power supply.
L1 - L2 = "REDI-BLOX" #305.) Refer to Sht. 5.
L3 = "REDI-BLOX" #301 (DET).)

(Sht. 4)

PILOT "DeLuxe" AC RECEIVER, 1927

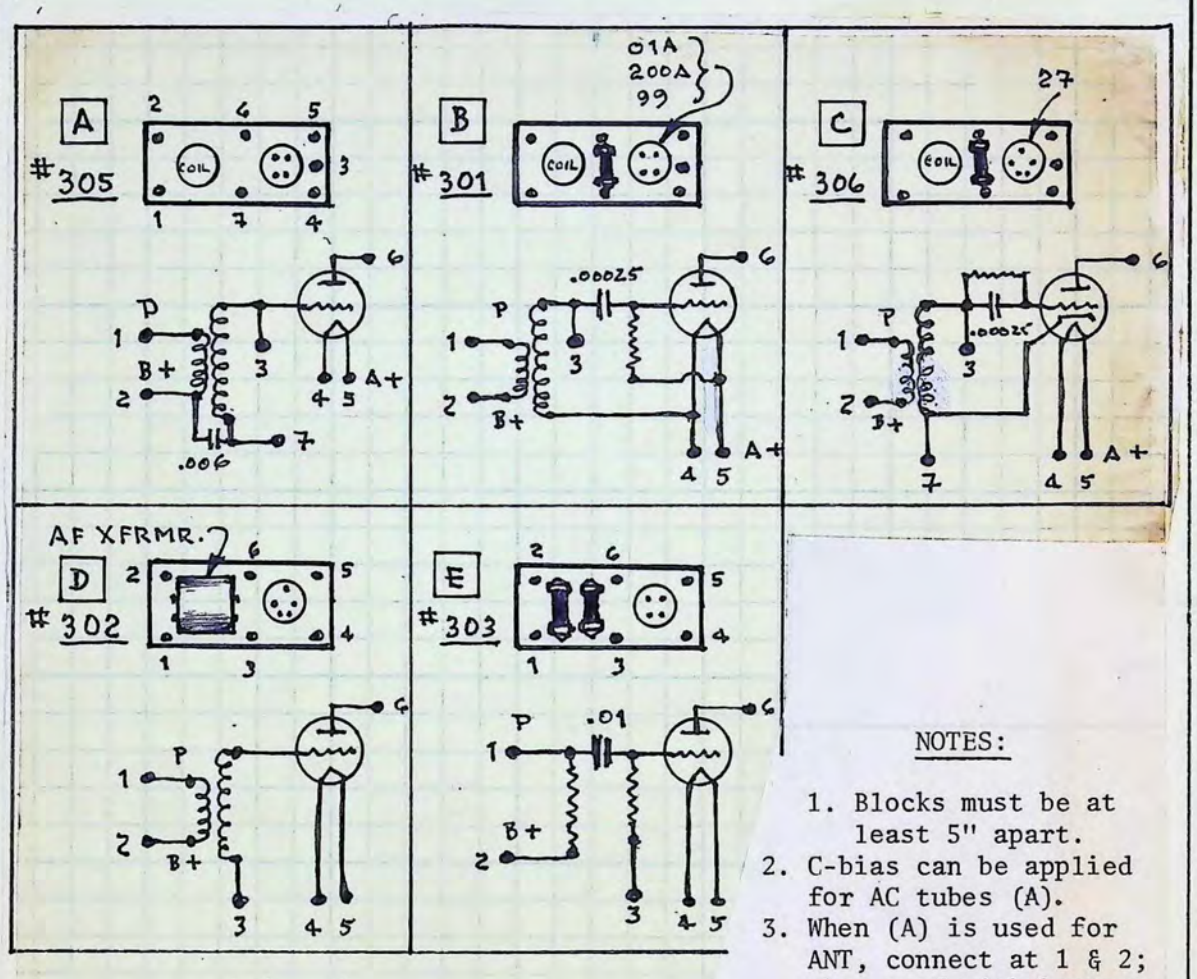


NOTE

Hole spacing for PILOT bakelite brackets only; typical 4 places.

(Sht. 5)

PILOT "DeLuxe" AC RECEIVER, 1927
"Redi-Blox" Data Sheet



A = UNIVERSAL "REDI-BLOX"

B = DETECTOR: BATTERY

C = DETECTOR, AC

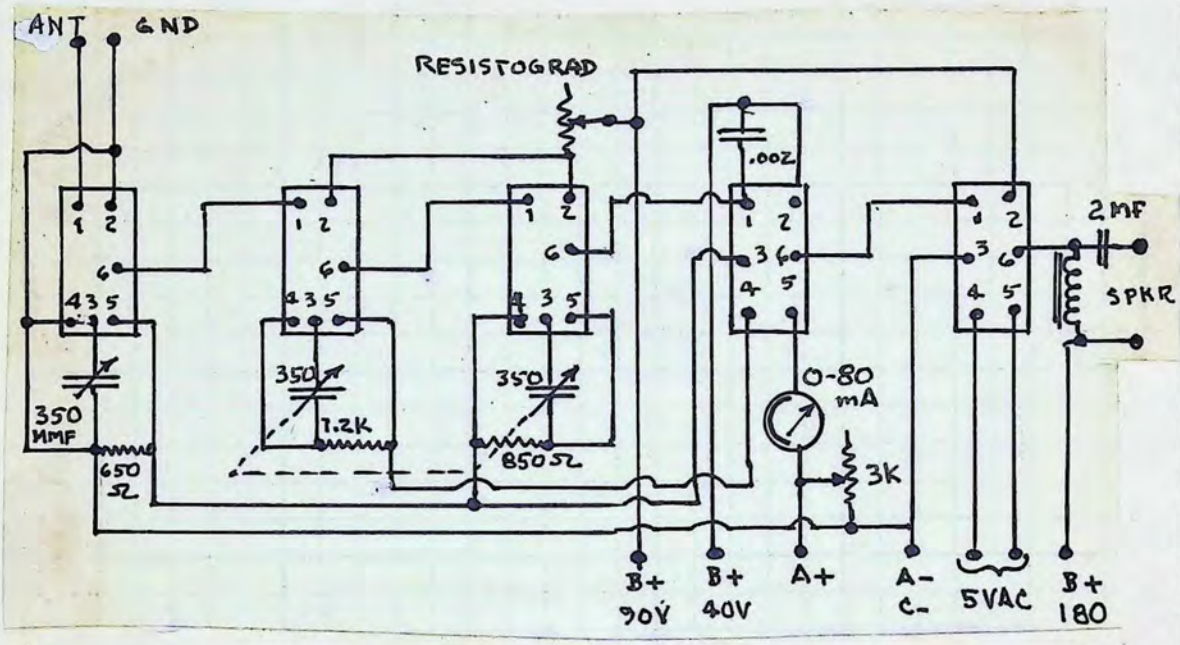
D = AF TRANSFORMER

E = RESISTANCE-CPLD. AF

NOTES:

1. Blocks must be at least 5" apart.
2. C-bias can be applied for AC tubes (A).
3. When (A) is used for ANT, connect at 1 & 2; when used with battery tubes, connect 7 & 4.
4. Insert .0005 MFD capacitor between 6 & B+45V terminal, or to 4.
5. All capacitors are installed underside of blocks.

(Sht. 6) PILOT "DeLuxe" AC RECEIVER, 1927



A SIMPLIFIED WIRING DIAGRAM

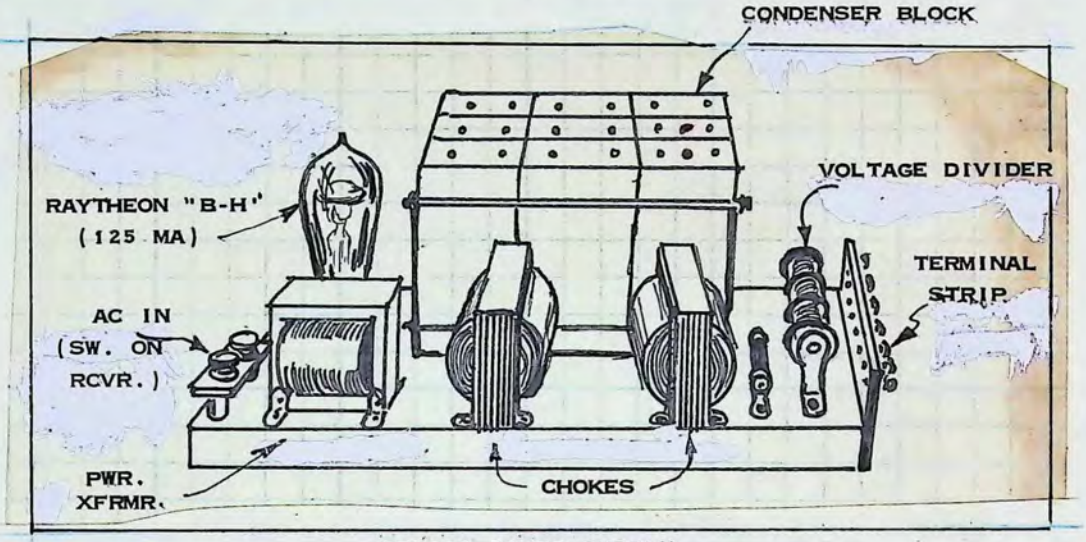
GENERAL NOTES:

This receiver was also known as the *SP-5* and as the *Geloso* receiver. John Geloso was an Italian radio engineer who functioned as Chief Engineer for PILOT for a few years, then returned to his native land to manufacture "pretty" ham gear.

The *Redi-Blox* were designed by Gordon M. Sleeper, who also functioned as Chief Engineer while with PILOT, after giving up his own company. In the first issue of PILOT's little magazine, entitled *Radio Design,* Sleeper wrote about *Redi-Blox* and this particular receiver. The circuit seems to have been a collaboration of four men, Geloso, Grimes, Sleeper, and Kruse.

A good ground is mandatory, and the meter reading held to 60 mA at all time.

(Sht. 7) PILOT "DeLuxe" AC RECEIVER, 1927

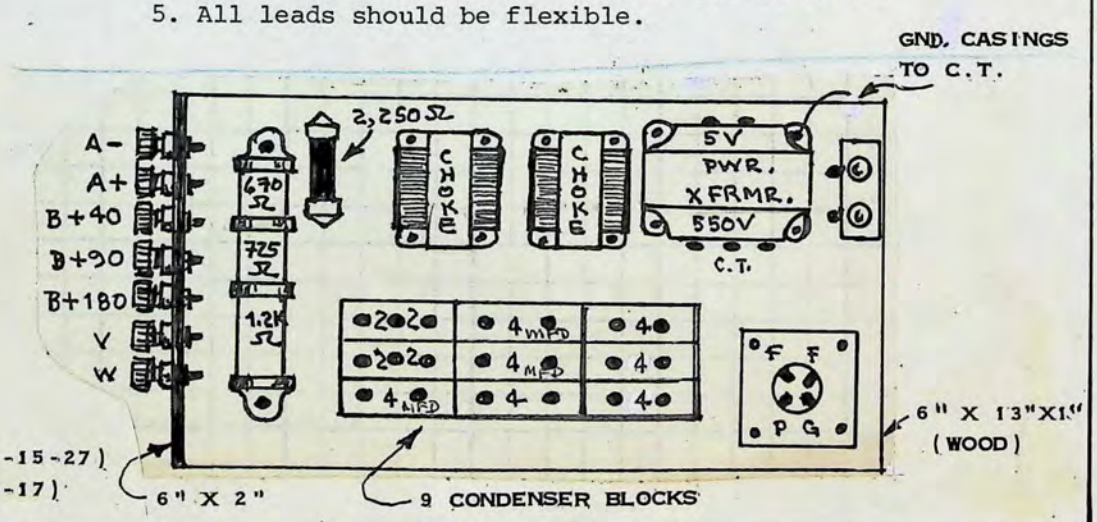


GELOSO POWER SUPPLY

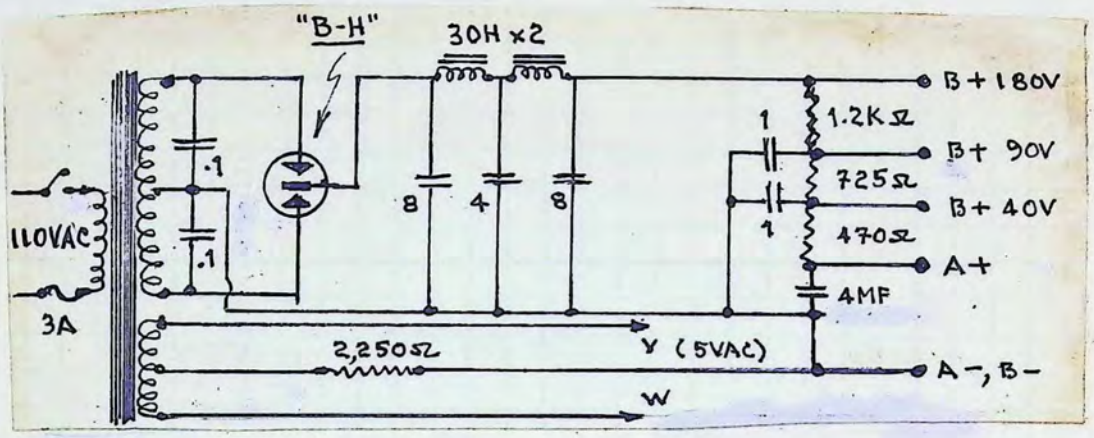
ORIGINAL CONFIGURATION FOR THE PILOT "DeLUXE"

NOTES:

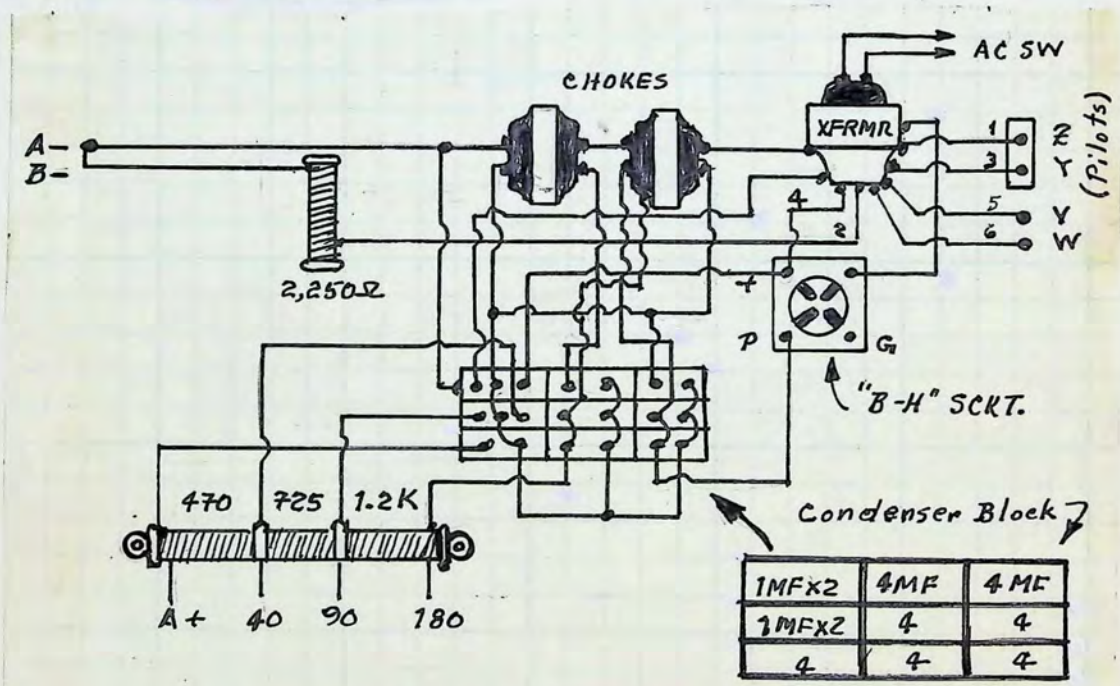
1. A good GND is essential for both the receiver and power supply: power unit grounds itself in the receiver.
2. The 99 tubes as RF tubes require NEGATIVE bias while the DET requires a POSITIVE bias.
3. Proper bias on first RF tube is mandatory; the values shown on the schematic must be followed.
4. The 3K-ohm rheostat across the series of four tubes holds current through the 99s at 60 mA.
5. All leads should be flexible.



(Sht. 8) PILOT "DeLuxe" AC RECEIVER, 1927

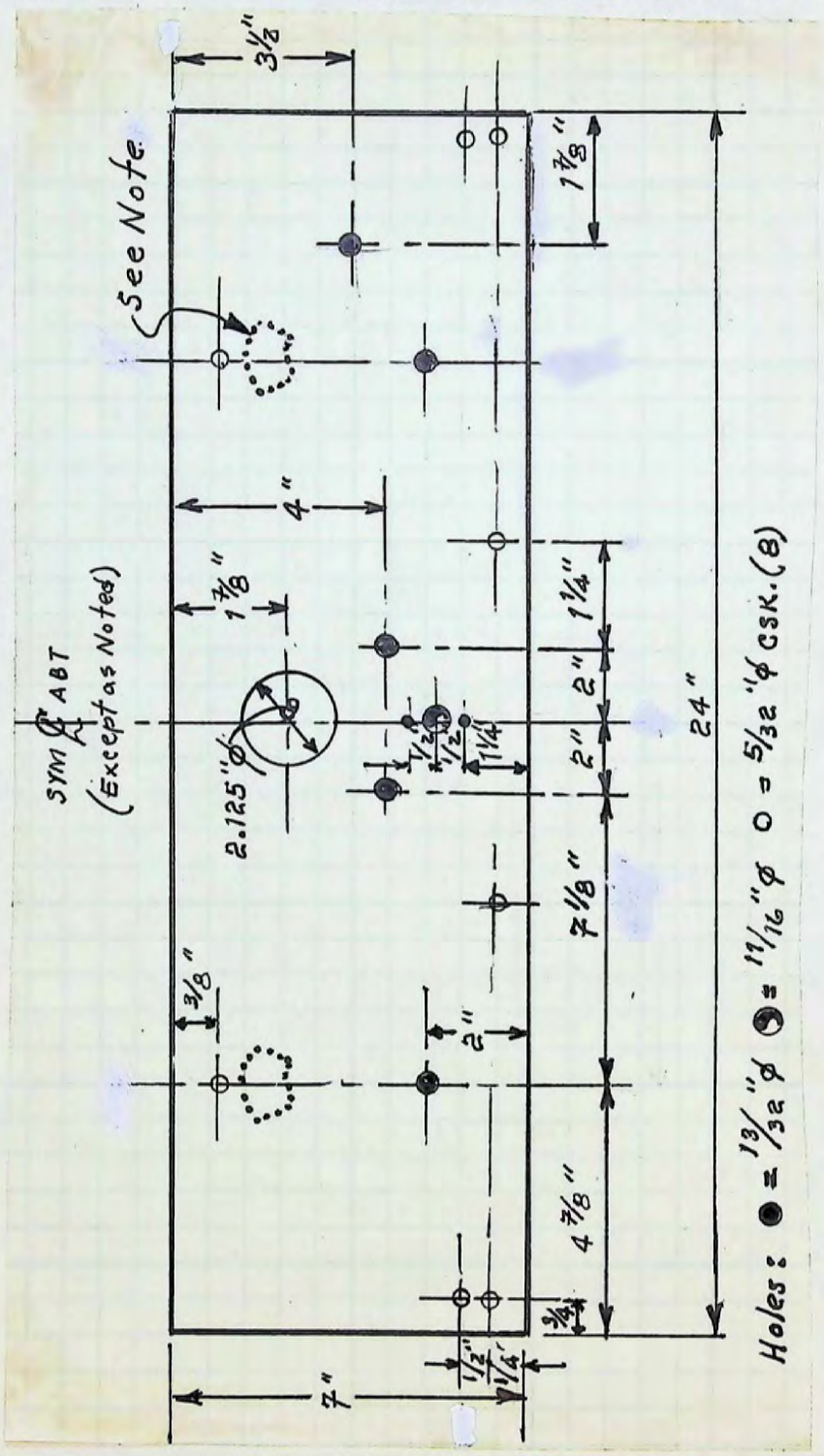


SIMPLIFIED POWER SUPPLY SCHEMATIC



ORIGINAL DIAGRAMATIC SKETCH

(Sht. 9) PILOT "DeLuxe" AC RECEIVER, 1927



PANEL LAYOUT

NOTE: DIAL WINDOW CUT-OUTS MADE USING THE MAR-CO TEMPLATE. REFER TO VOL. VII FOR A FULL-SCALE DRAWING OF THE MAR-CO WINDOW TEMPLATE.

(Sht. 10)

PILOT "DeLuxe" RECEIVER, 1927

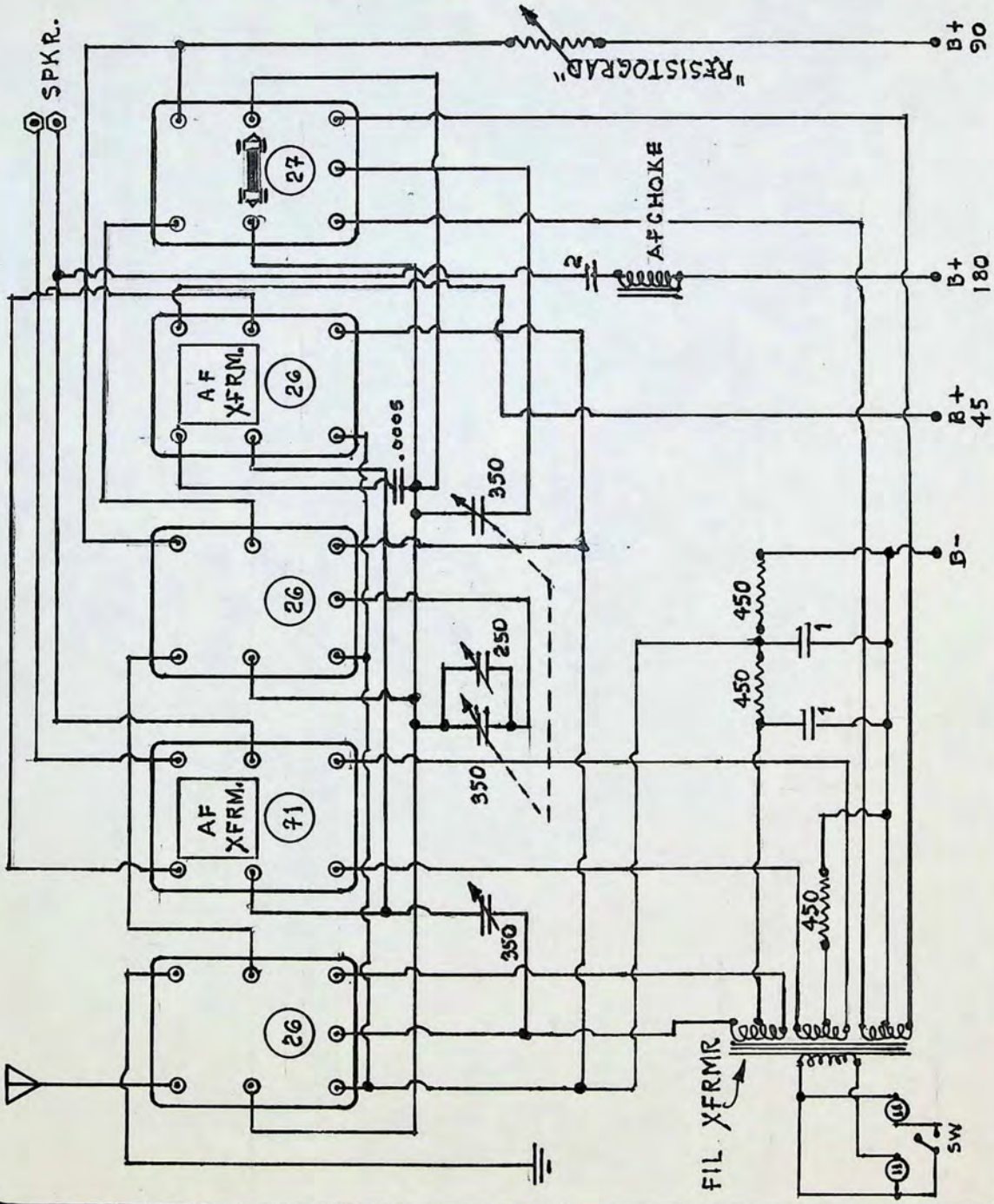
TESTING & TUNING

1. Insert coils into "Redi-Blox".
2. Insert a 71A in the left-hand "Redi-Blox and 99s in all other tube sockets.
3. Connect the socket-power unit to the set.
4. Switch on pilot-lights. (The switch on the front panel controls the pilots only.)
5. Adjust rheostat until meter reads exactly 60 mA.
6. Tune in a station by adjusting both dials. If the signal is weak, bring it up via the midget variable.
7. Regulate the volume by the variable resistor. This control may affect the meter reading; if so, re-adjust the rheostat for 60 mA.

The "DeLuxe"
AC Receiver
In A Pooley Cabinet

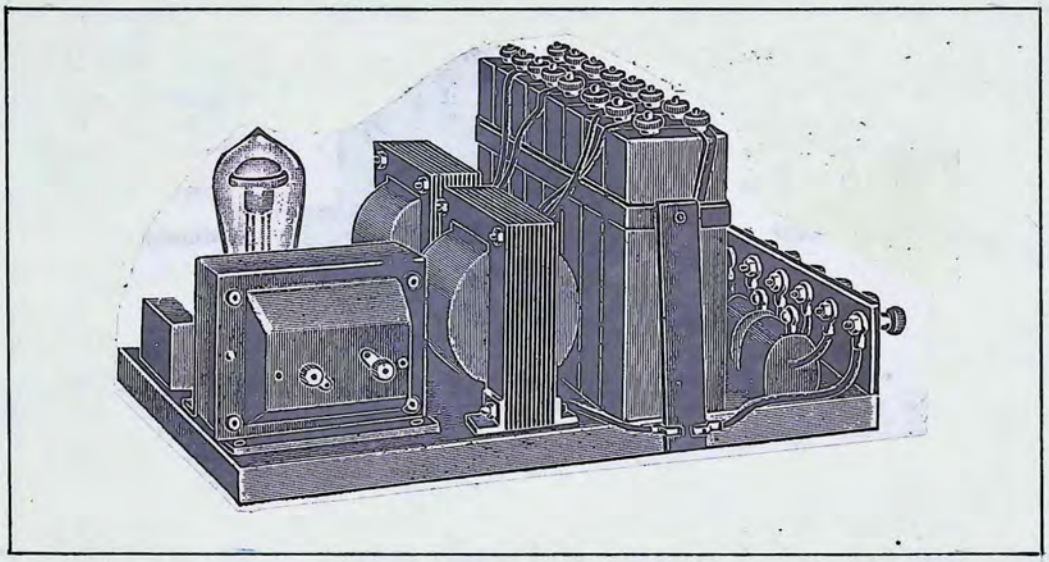
PILOT "AIR SCOUT" AC RECEIVER, 1927; Sht. 1

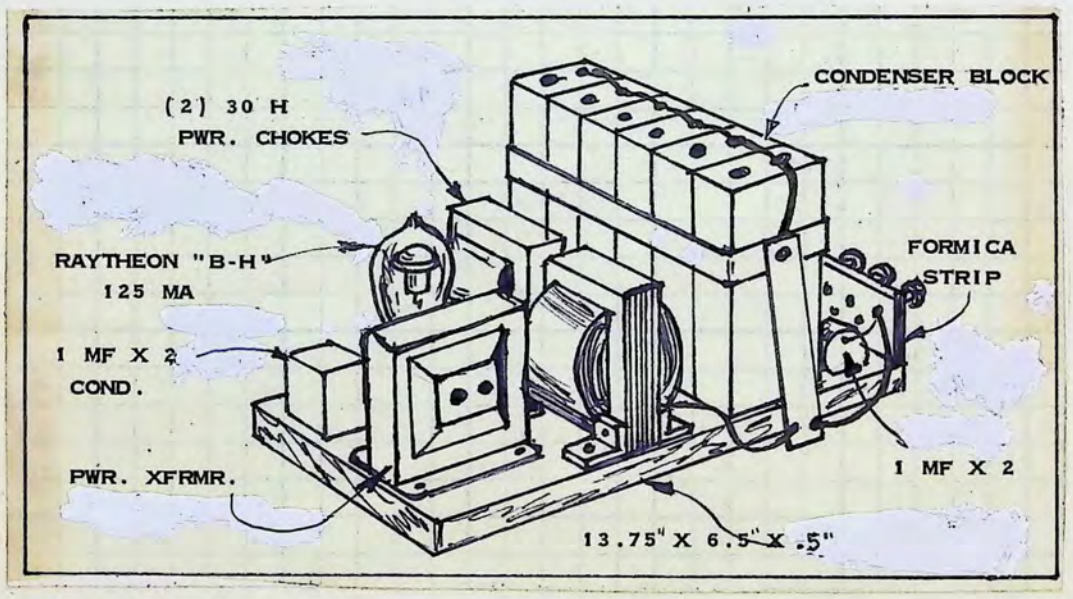
NOTE: This is essentially an "electrified" version of the PILOT "DeLuxe" receiver; there was little difference in performance.



(Sht. 2) PILOT "AIR SCOUT" AC RECEIVER, 1927

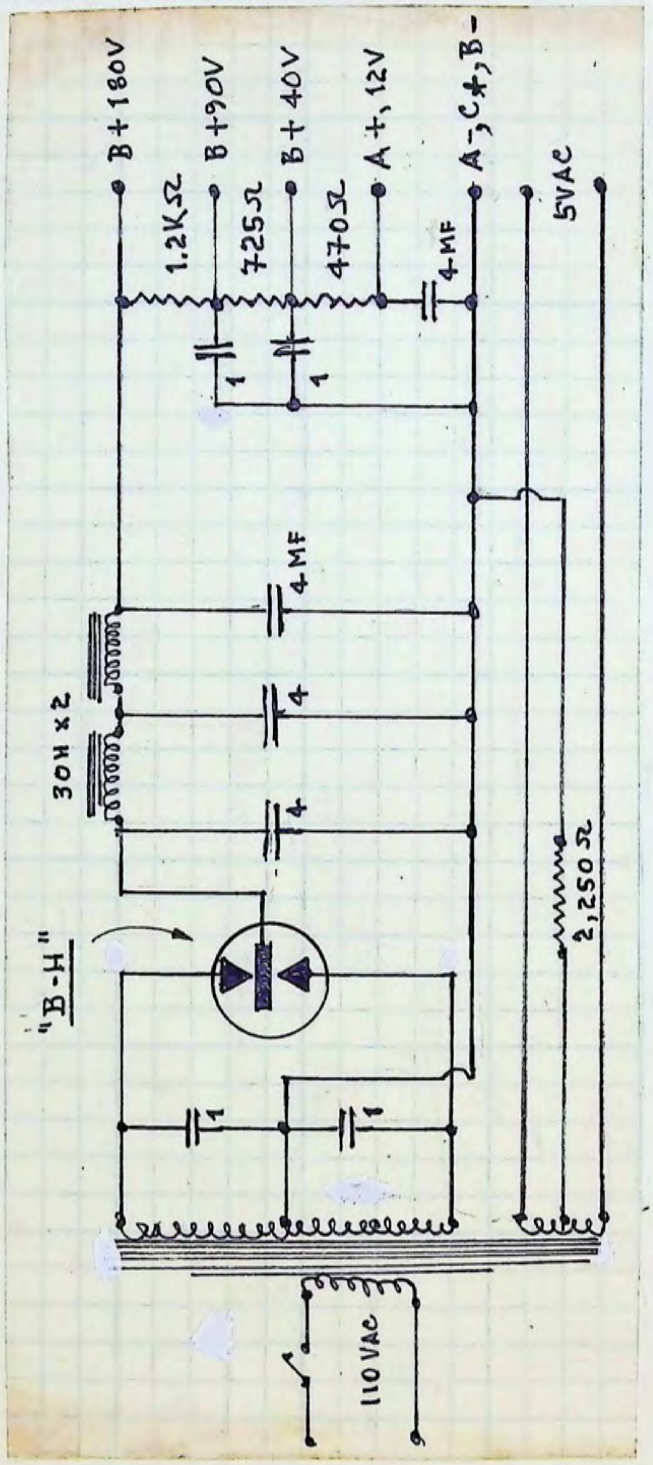
This power supply was originally an A-B-C eliminator kit, selling for $40, and used by PILOT for several other of their receivers.



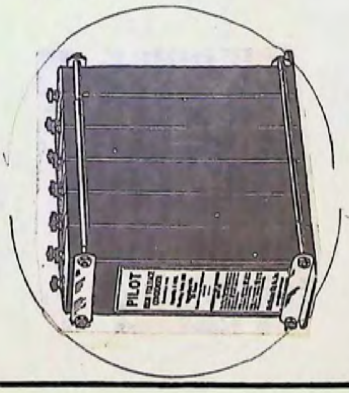


(Sht. 3)

PILOT "AIR SCOUT" AC RECEIVER, 1927



This was a conventional B-eliminator of the period, and offers no challenges in constructing. The only curious note occurs in PILOT's use of 1 MF condensers across an obviously conventional Secondary of the transformer. The practice seems to have been peculiar to PILOT, as all other B-eliminators used .01 MF.



"WORLD'S LARGEST RADIO PARTS PLANT"

PILOT

ELECTRIC M'F'G. CO., INC.
323 BERRY ST., BROOKLYN, N.Y.

TRADE MARK

Practically every radio part necessary to build modern receivers, complete kits, etc.—all made complete in our own huge plant—large volume—low prices—high quality parts. Write for Catalog and name of nearest Pilot Dealer.

PILOT SUPER-WASP KIT

(Catalog No. K-110) Including 2 sets of 5 coils each, full-sized blue-print and complete assembly data.

$29.50

Slightly higher west of the Rockies.

PILOT WASP

17 to 500 Meters

11,000-Mile Range on Short Waves

Complete Set of Parts, postpaid. $18.50

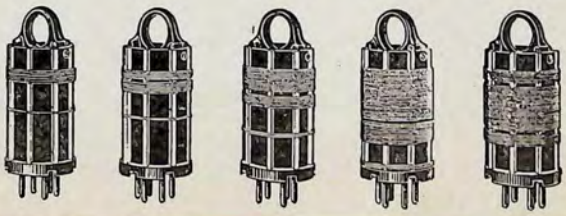
SPEED, Inc. 103-D BROADWAY BROOKLYN, N. Y.

11,000 Mile Range $18.50

COMPLETE WASP KIT, WITH MICARTA PANELS DRILLED AND ENGRAVED, ALL OFFICIAL PARTS, AND 5 WASP COILS, POSTPAID

Be the first among your friends to hear the foreign broadcast stations. Build the WASP short wave receiver. Use the WASP coils, the same coils which, during tests on Byrd's airplane receivers, brought in Java, Holland, and England in the daytime. Use the Official design, developed by R. S. Kruse and M. B. Sleeper. Official WASP sets are being used by the U. S. Signal Corps, A.R.R.L. operators, and DX fans who want distance that can be obtained on no other set.

17-30 M 30-52 M 48-105 M 73-202 M 200-500 M

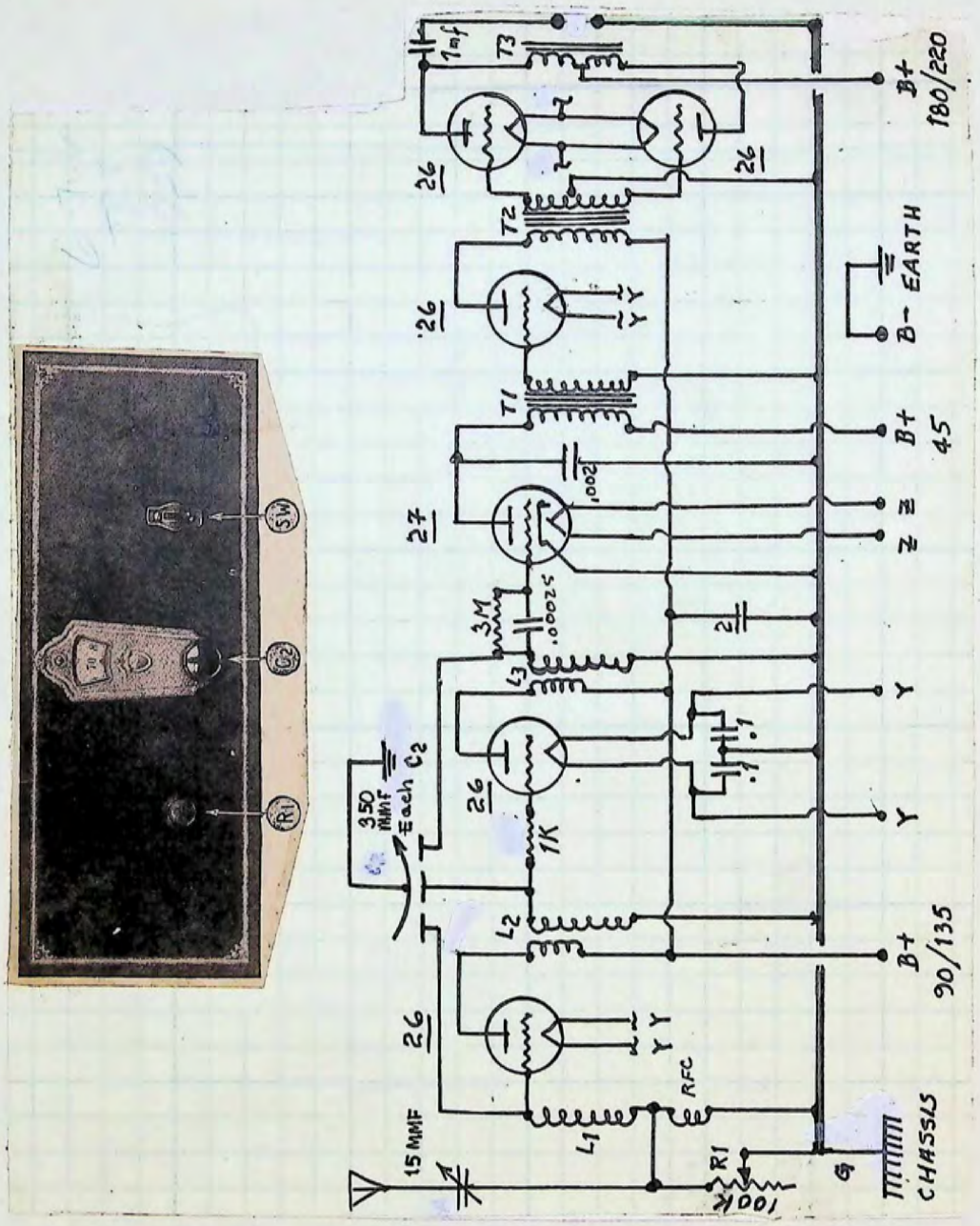


Prompt Delivery

Send in your order TODAY and your Kit, with blue prints, 48 page book, and call list will be rushed to you at once.

SPEED, Inc.
Fastest Mail Service
103-D Broadway, Brooklyn
New York

PILOT 6-TUBE TRF RECEIVER, 1928



All heater leads should be twisted to diminish AC hum. The centre-tap of the RF & AF winding on the pwr. xfrmr. should have 450-ohms to ground.

THE PILOT "WASP"

One of the more exciting advents of 1928 was the sudden or unexpected announcement of the PILOT "Wasp" short-wave receiver. A compact little set, designed by R.S.Kruse, and touted by Sleeper.

The circuit and parts were offered as a kit for under $20 dollars, accompanyed by a 48-page booklet of instructions and full scale blue-prints. All things considered, it was a remarkable bargain. It caught-on quickly, and within a year the PILOT set which was to become truly famous, the "Super Wasp", was offered, together with the "Wasp" and "Super Wasp" short-wave converters.

With a panel only 7" x 14" and a base-plate 7" x 13", it's diminutive size surprised a lot of people, but records show signal reception from such places as Java, Holland, England, Japan. There were five colour-coded coils in the kit, with an innovative handle affixed at the top. The colour-code was as follows:

COLOUR	RANGE
Red	17 - 30 Meters
Orange	30 - 52 "
Yellow	48 - 105 "
Green	73 - 202 "
Blue	200 - 500 Meters

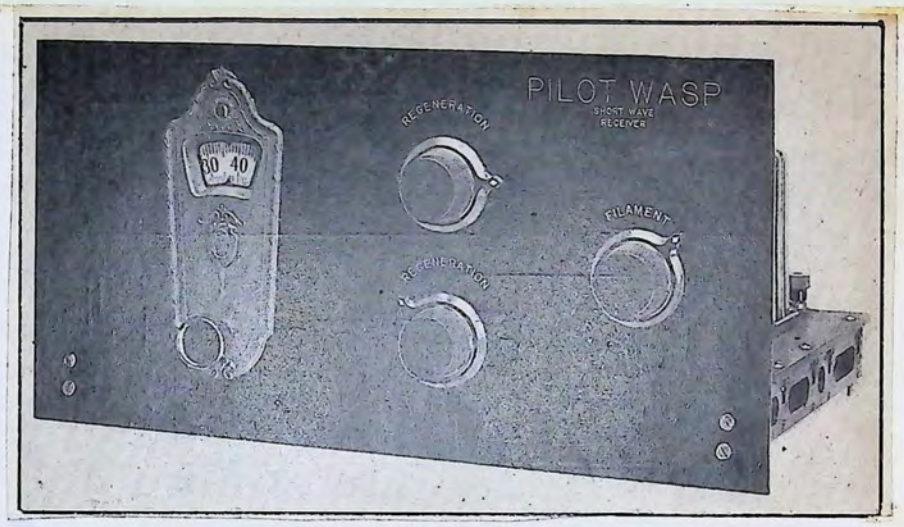
The operating instructions were as simple as the set:

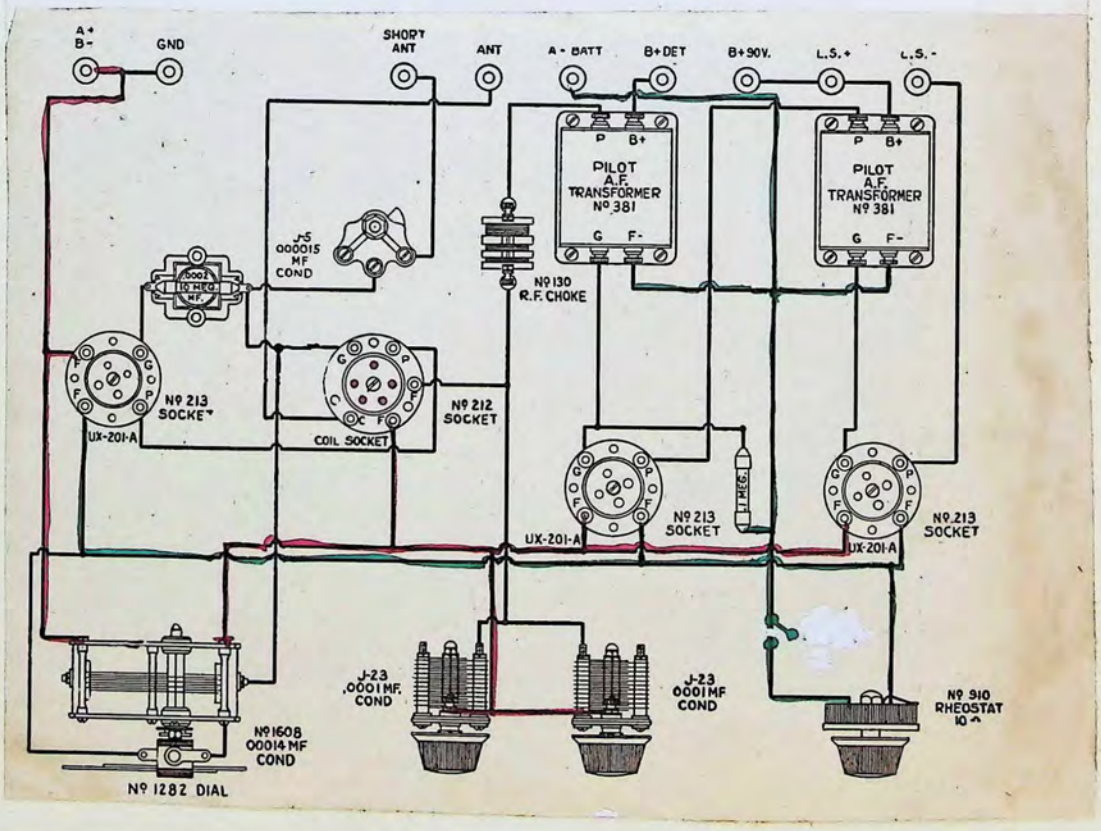
1. Insert one of the coils.
2. Set upper REGENERATION variable at Zero.
3. Tune in a signal with the main variable.
4. Adjust the ANT series midget variable on the base-plate so as to make the circuit oscillate at all wave-lengths.
5. Try different grid-leaks for best reception.
6. A 20' antenna was recommended.
7. A good ground was mandatory!
8. Best reception was usually through the SHORT ANT lead.

The idea of having two Regeneration controls in parallel was novel and, more importantly, efficient, as they permitted an unusual degree of precise tuning. Equally appealling to many was the fact that, aside from the low cost, PILOT parts were recognised by that time as among the best on the market.

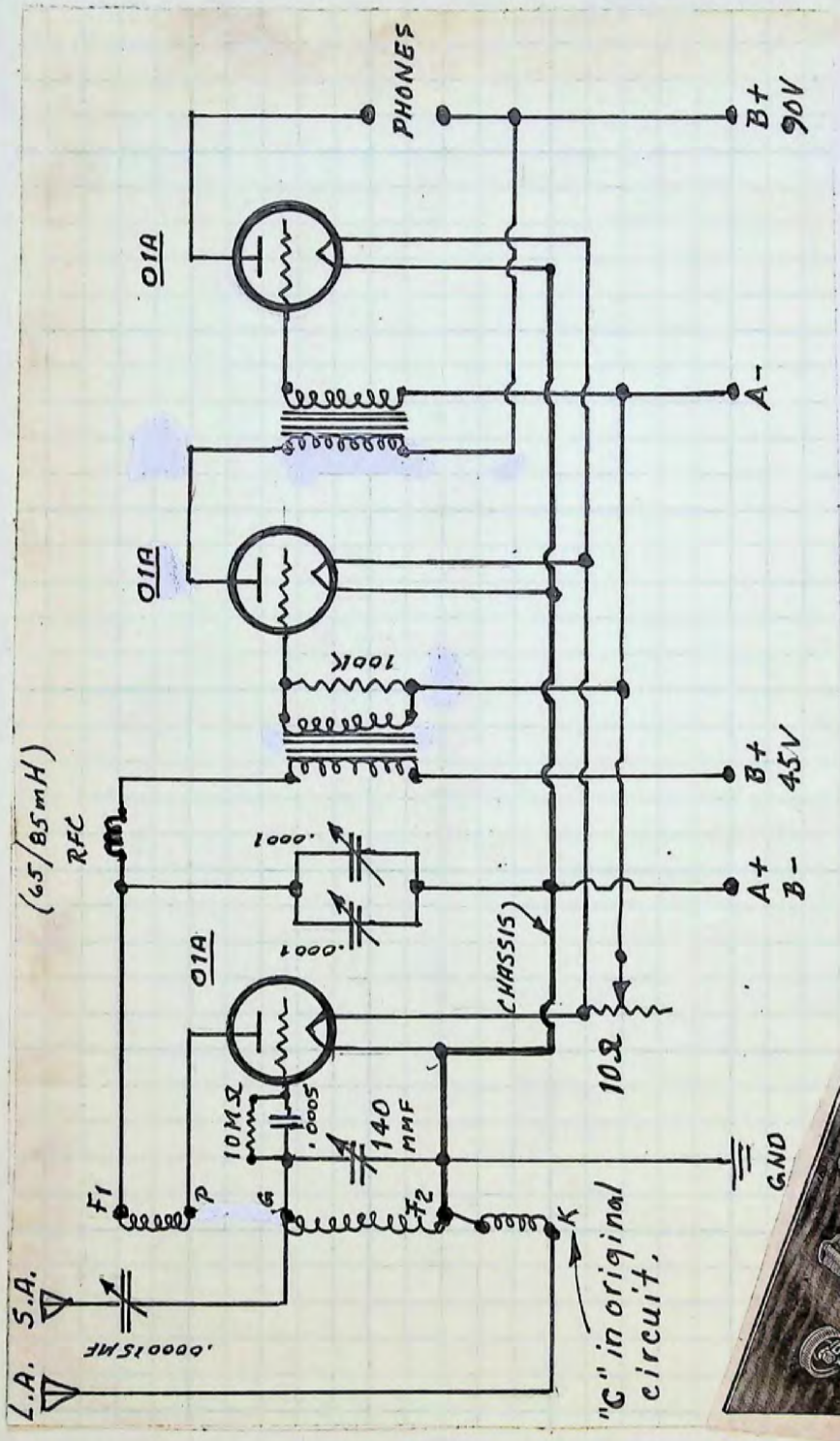
The PILOT parts called for seem to be more-or-less redily available at most swap-meets, and you will find it well worth your time and talent to construct the original PILOT "Wasp".

(Sht. 2) PILOT "WASP" SHORT-WAVE RECEIVER, 1928



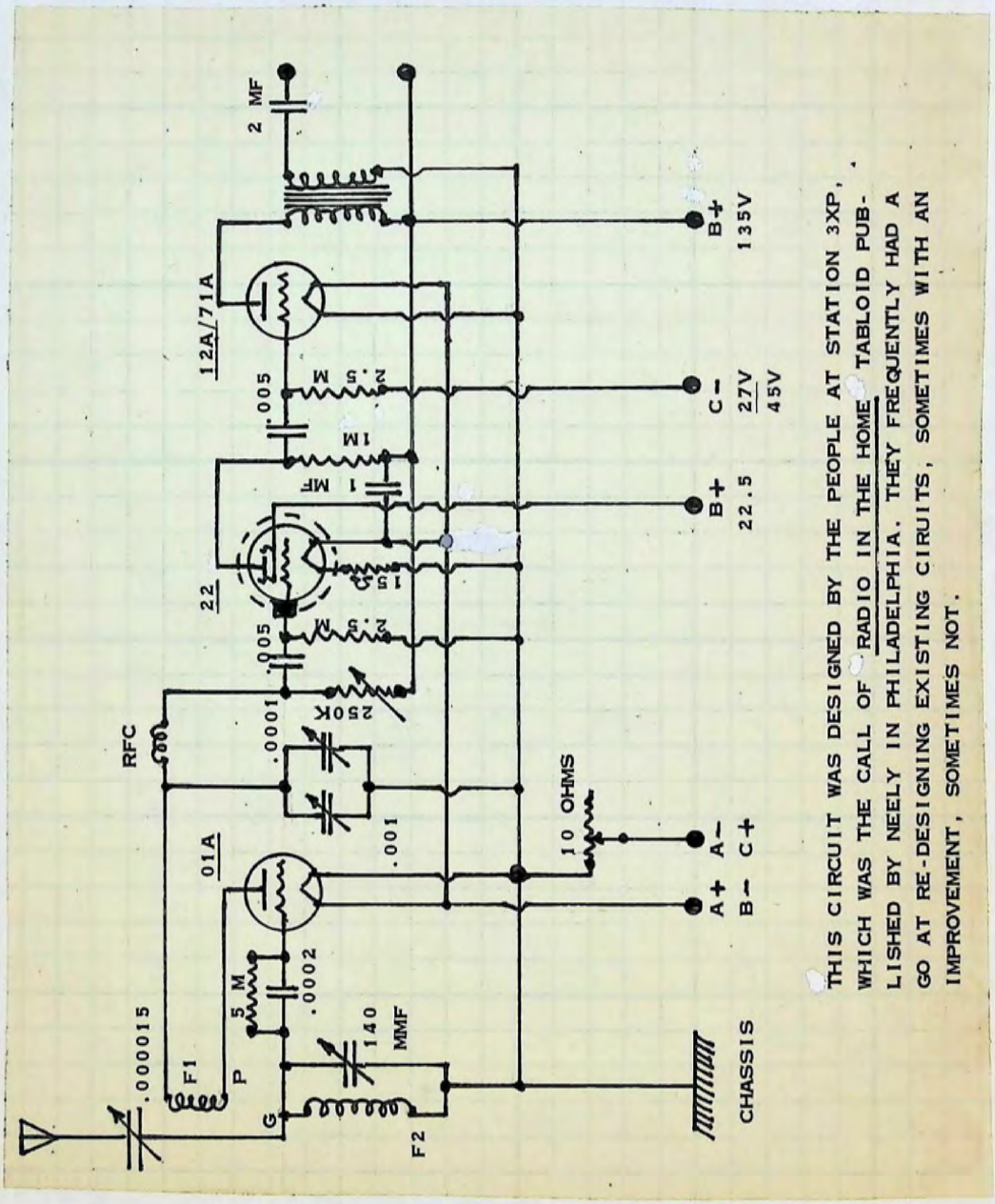


(Sht. 3) PILOT "WASP" SHORT-WAVE RECEIVER, 1928



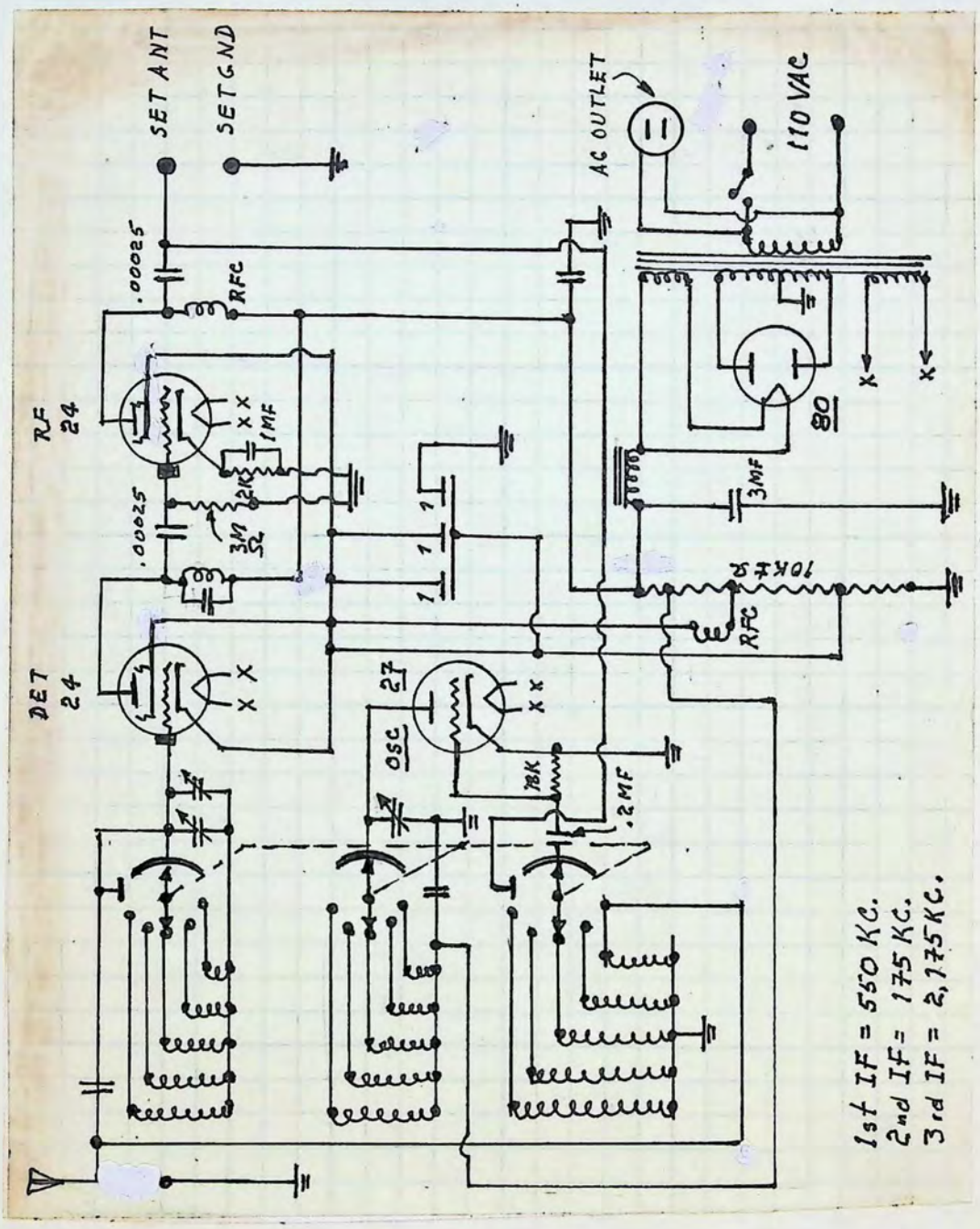
The original "Wasp" was prone to body-capacity, and a later version incorporated a metal base-plate and a connexion between two coil windings, as shown. The AF sexion works quite well with a 12 or 12A in the last stage.

3XP EXPERIMENTAL "WASP" SW. RCVR., 1928: Sht.4



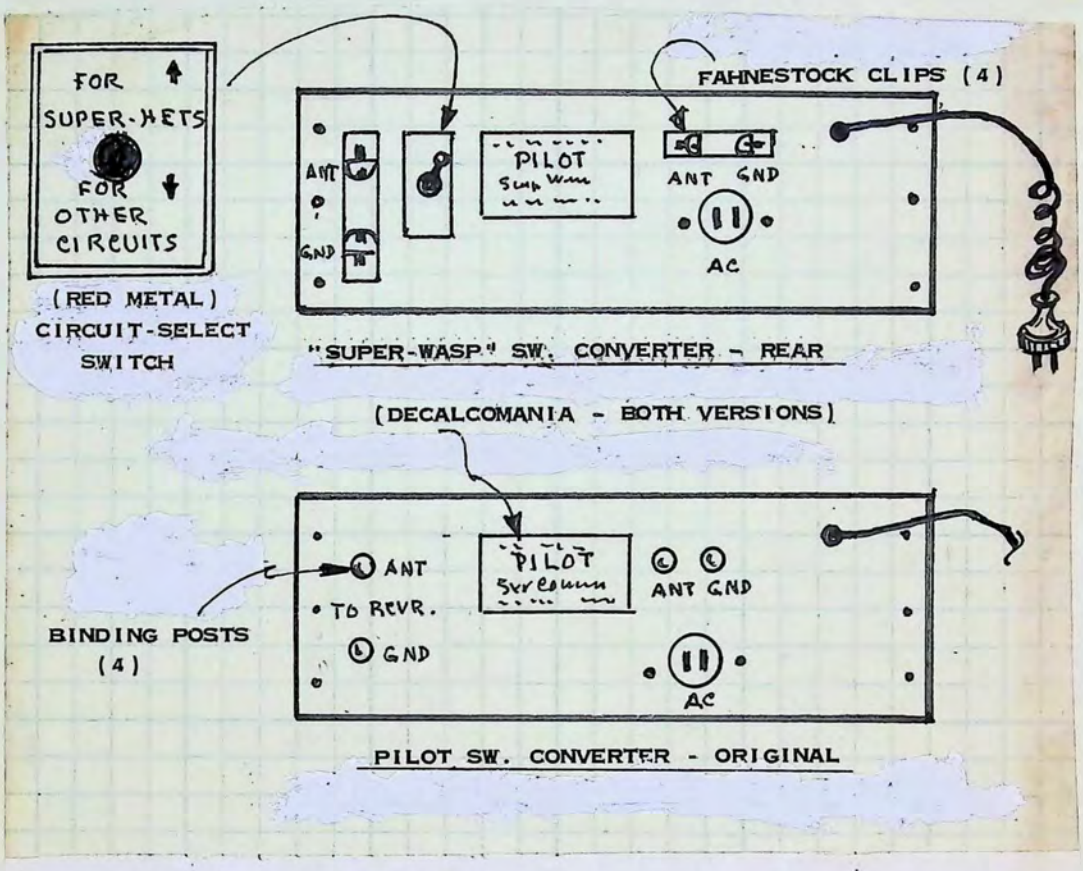
(RW 10-13/10-20 '28)

(Sht. 1) PILOT AC SHORT-WAVE CONVERTER, 1928

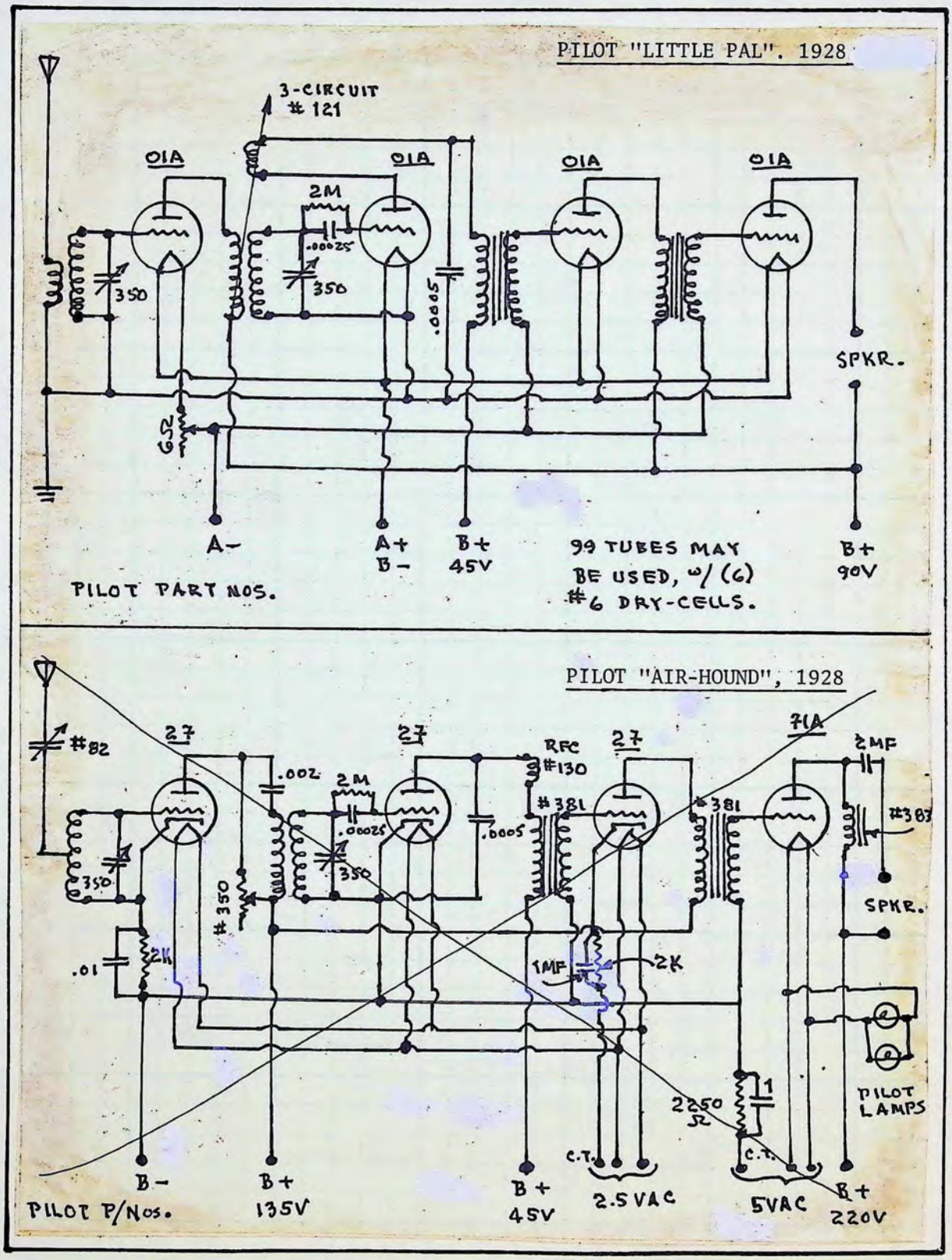


(OSWRM)

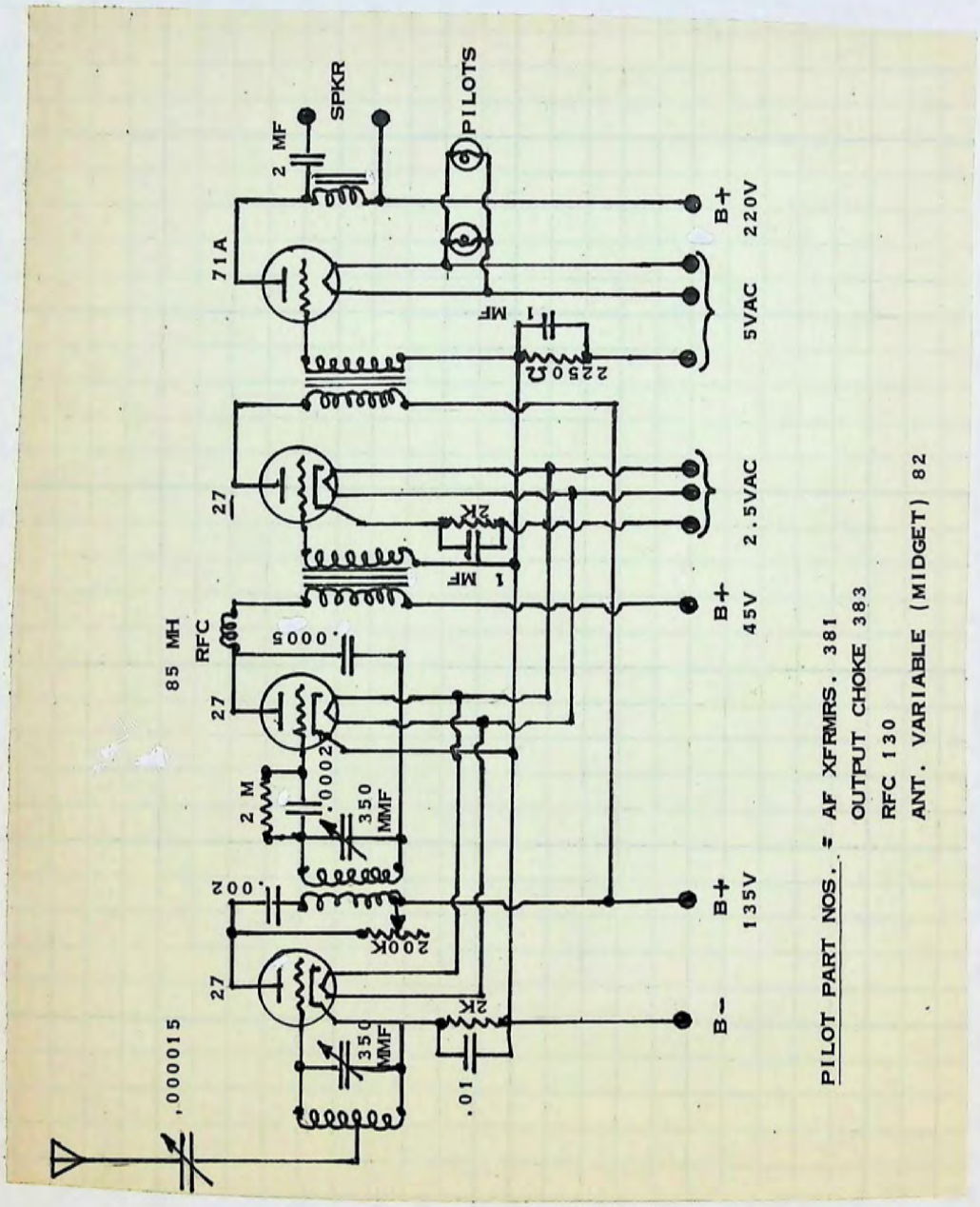
(Sht. 2) PILOT AC SHORT-WAVE CONVERTER, 1928



Except for the Circuit Select switch, both units, including circuitry and tubes, were identical. Both had paper decalcomanias pasted on the rear panel, and such decals do have a habit of rubbing off. The above sketches will help you determine which model you have. Both models carried serial numbers above 200,000; the "SUPER WASP" version serial numbers started with 202,000. The AC outlet shown was for plugging-in the radio, tuner, etc.

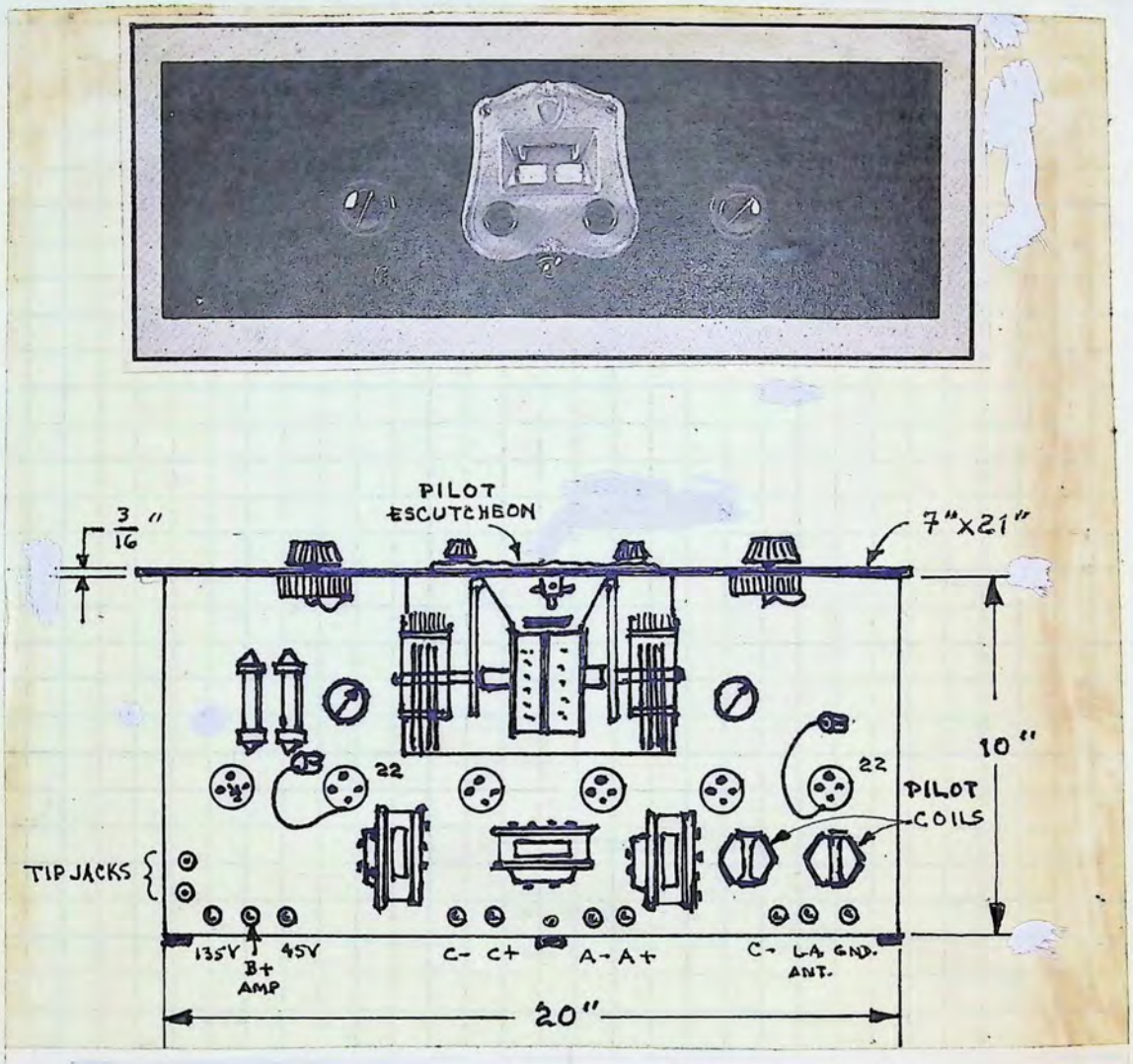

PILOT "LITTLE PAL". 1928
3-CIRCUIT
#121
01A
01A
01A
01A
2M
.00025
350
350
.0005
SPKR.
A-
A+
B-
B+
45V
B+
90V
99 TUBES MAY
BE USED, w/ (6)
#6 DRY-CELLS.
PILOT PART NOS.
PILOT "AIR-HOUND", 1928
#82
27
27
27
71A
.002
2M
.00025
350
350
.0005
RFC
#130
#381
#381
2MF
#383
SPKR.
#350
.01
2K
1MF
2K
1
2250
Ω
PILOT
LAMPS
B-
B+
135V
B+
45V
C.T.
2.5VAC
C.T.
5VAC
B+
220V
PILOT P/NOS.

PILOT "AIR-HOUND" AC TRF RECEIVER, 1928



(Sht. 1)

PILOT "SUPER SIX" RECEIVER, 1928



COIL CONNEXIONS

MODULATOR

Terminal

1. G; to grid & .00025.
2. H or F; nearer C-post; to C-, GND, rotor.
3. H or F; nearer P; to C.
4. P; on coil sckt. N/C.
5. C or K; to ANT.

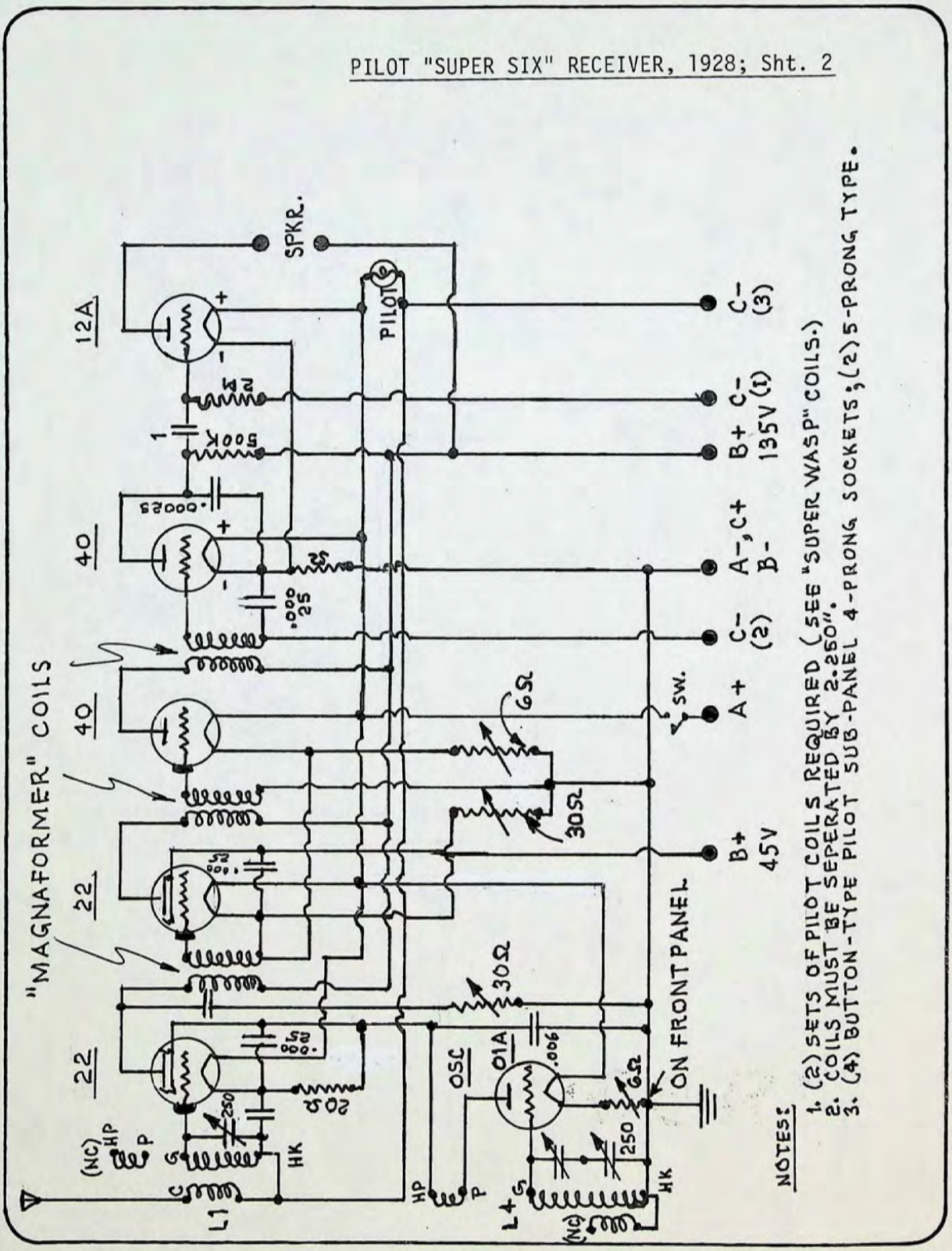
OSCILLATOR

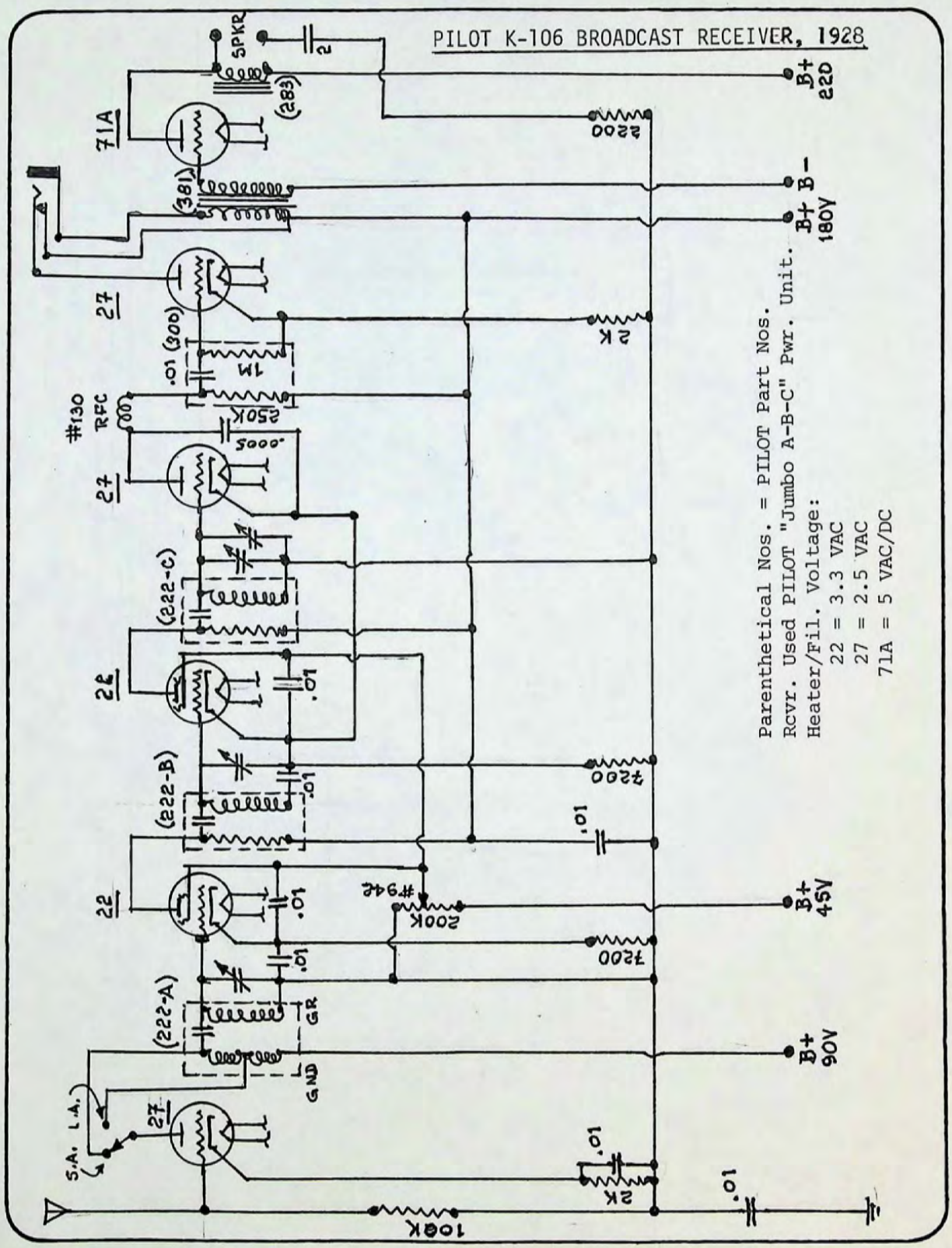
Terminal

1. -G; to osc. grid & trimmer.
2. H nearer C, & to H- & rotor.
3. H or F; nearer P & B+ 45V.
4. P; to osc. plate.
5. C or K; to H or F of MOD coil.

(RW 9.18.28)

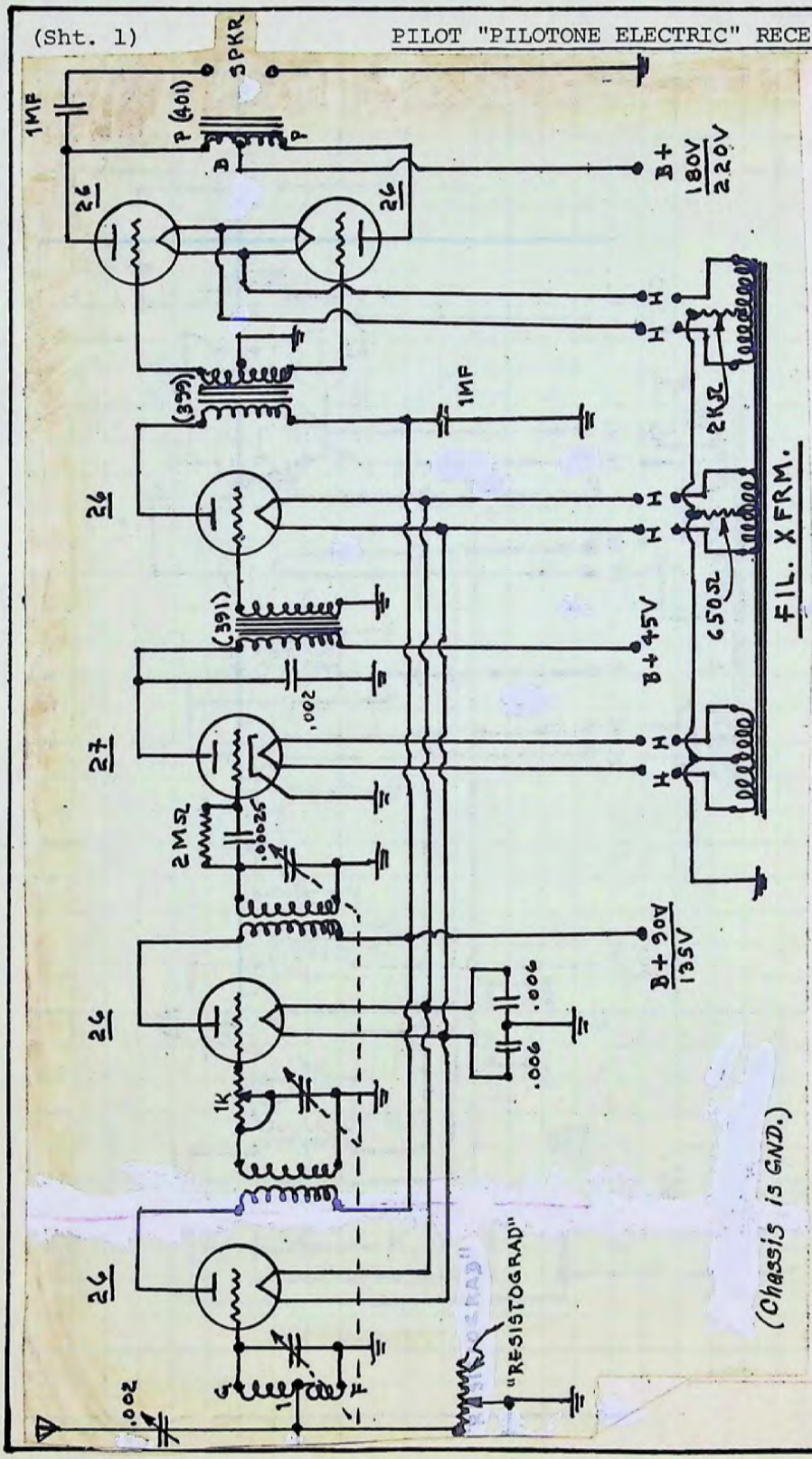
PILOT "SUPER SIX" RECEIVER, 1928; Sht. 2




PILOT K-106 BROADCAST RECEIVER, 1928
SPKR
2
(283)
71A
(381)
27
.01 (300)
1M
250K
#130 RFC
.0005
27
(222-C)
22
.01
(222-B)
.01
22
.01
#942
200K
.01
(222-A)
GR
GND
27
S.A. L.A.
100K
2K
.01
2200
2K
4200
7200
B+ 22D
B- B+ 180V
B+ 45V
B+ 90V
Parenthetical Nos. = PILOT Part Nos.
Rcvr. Used PILOT "Jumbo A-B-C" Pwr. Unit.
Heater/Fil. Voltage:
22 = 3.3 VAC
27 = 2.5 VAC
71A = 5 VAC/DC

(Sht. 1)

PILOT "PILOTONE ELECTRIC" RECEIVER, 1929

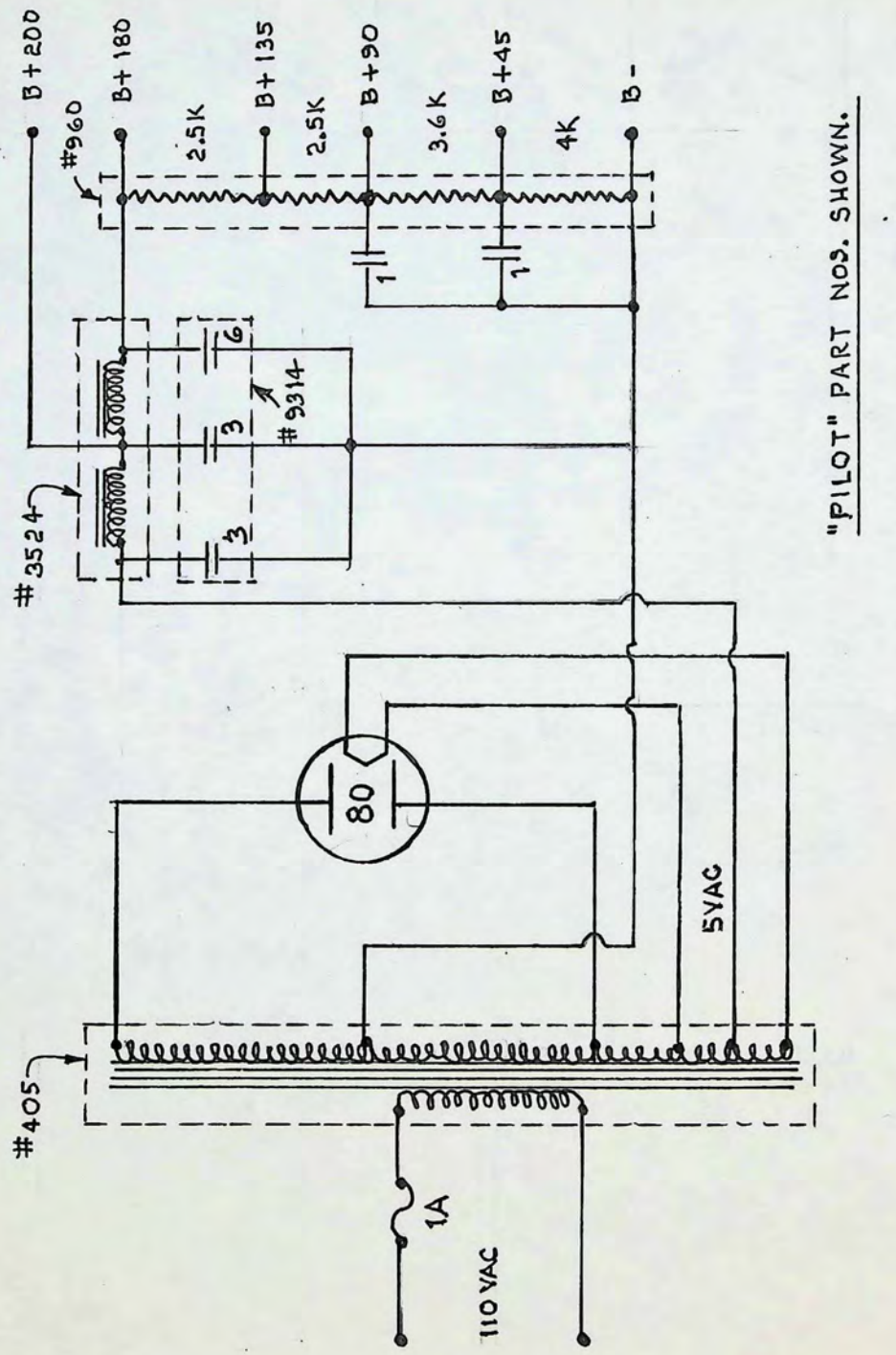


NOTES:

This is a modernisation of the original "Pilotone"receiver designed by Merle Dustin in 1925, and sold in 1926 through the S.S.Kresge stores.

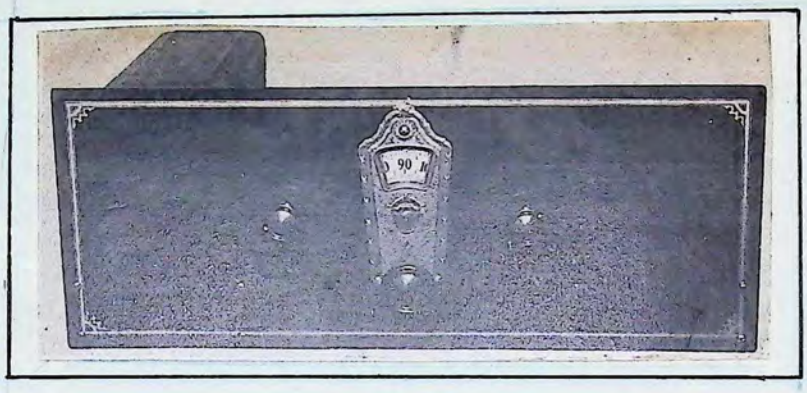
PILOT part numbers shown. Filament Transformer #404.
3-Gang Variable Condenser = #1703. (Three AC windings.)

PILOT "PILOTONE ELECTRIC" POWER SUPPLY, 1928; Sht. 2



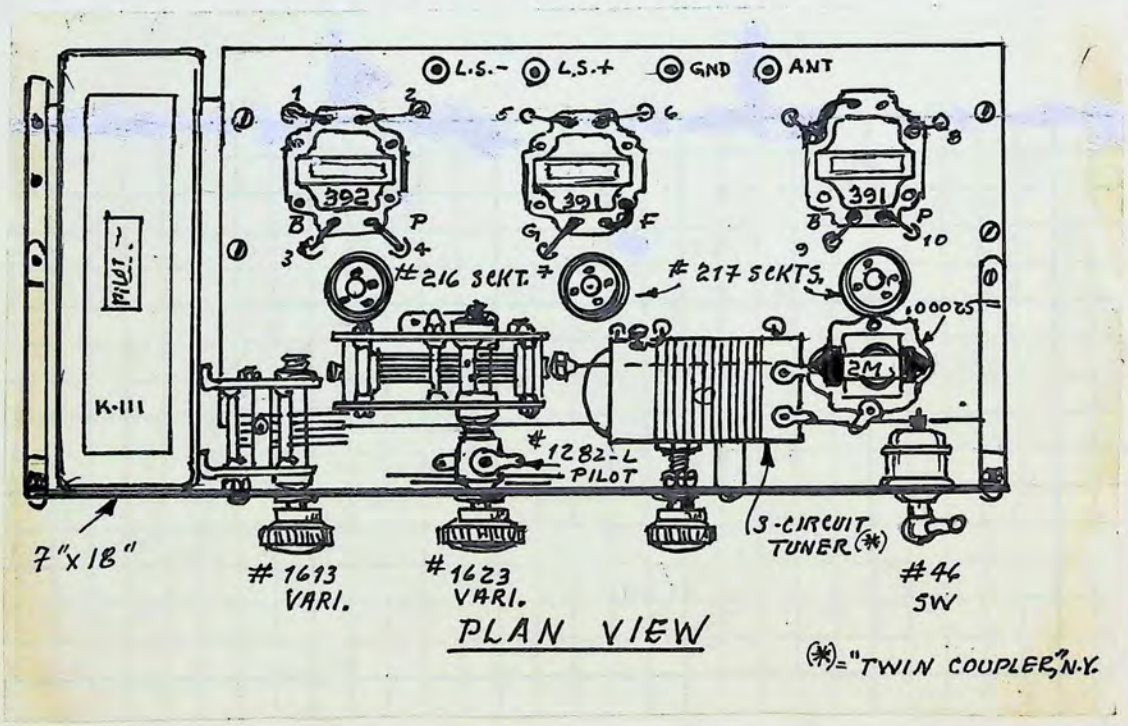
"PILOT" PART NOS. SHOWN.

(Sht. 1) PILOT AC-THREE, 1929 (A John Geloso Design)

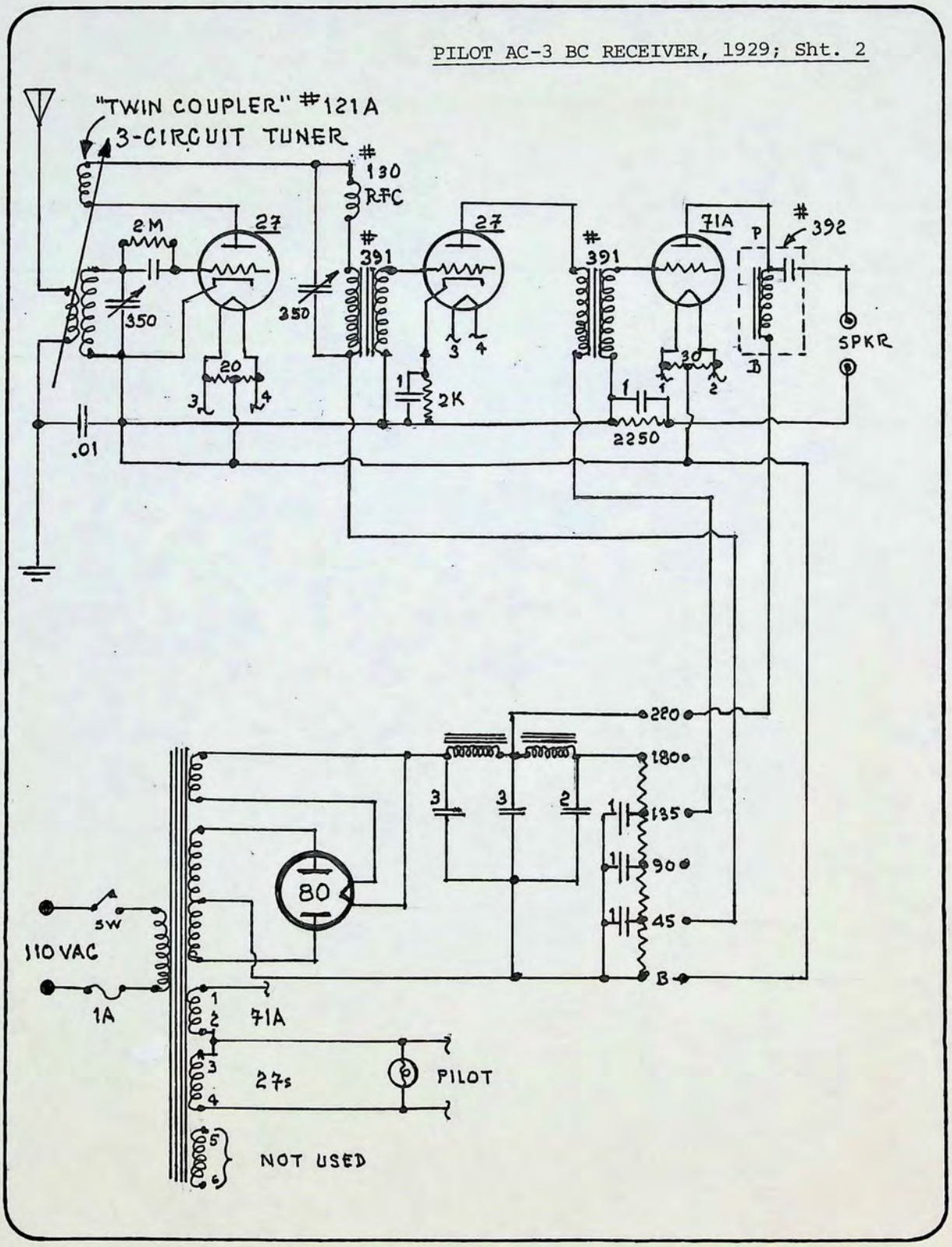


GENERAL NOTES

1. All binding posts are insulated from chassis.
2. TICKLER of 3-circuit tuner faces inboard.
3. REGENERATION control is on LH side of panel.
4. All centre-tapt resistors are soldered to lugs on tube sockets.
5. The main variable tunes the grid circuit.
6. The K-111 power unit was essentially the K-112, which was essentially the same as the K-113.

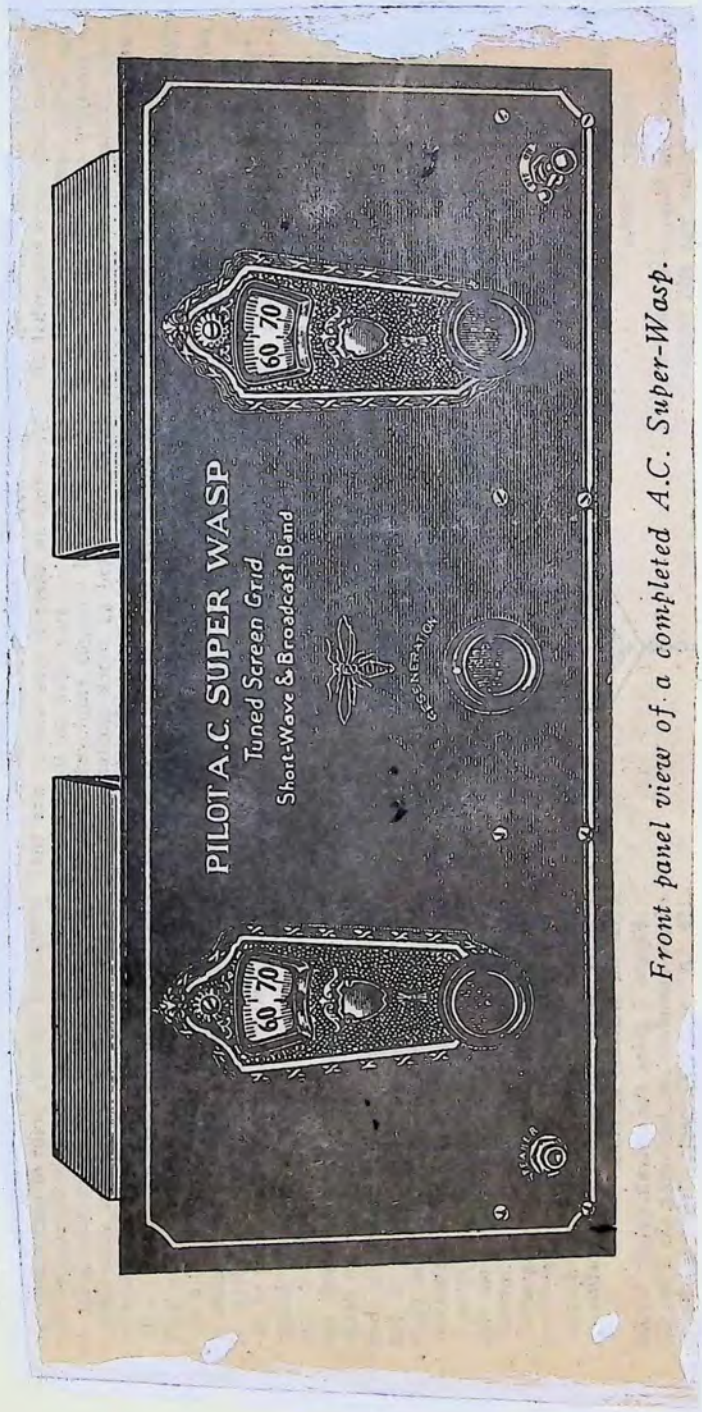


PILOT AC-3 BC RECEIVER, 1929; Sht. 2

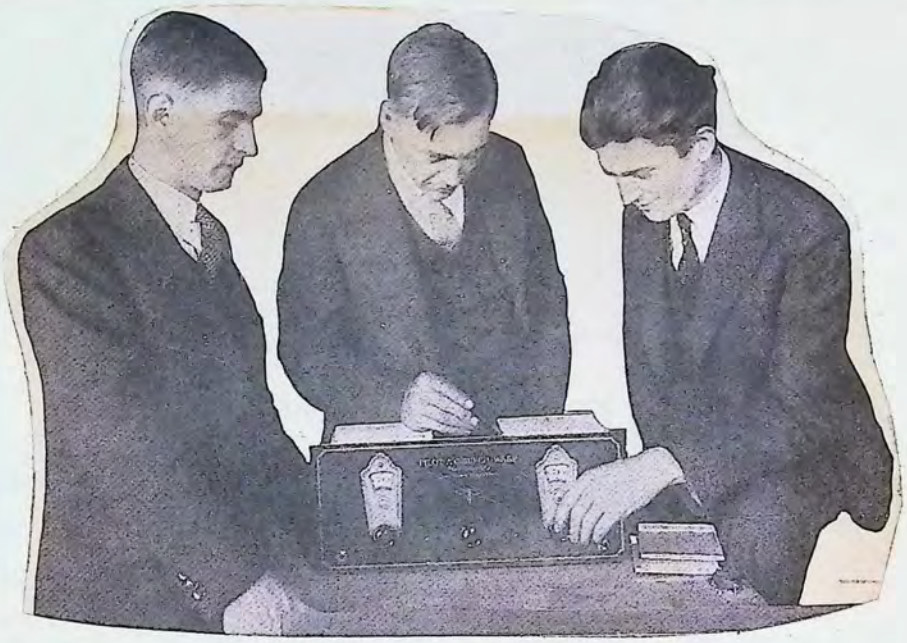


The Pilot

A. C. SUPER-WASP



Front panel view of a completed A.C. Super-Wasp.



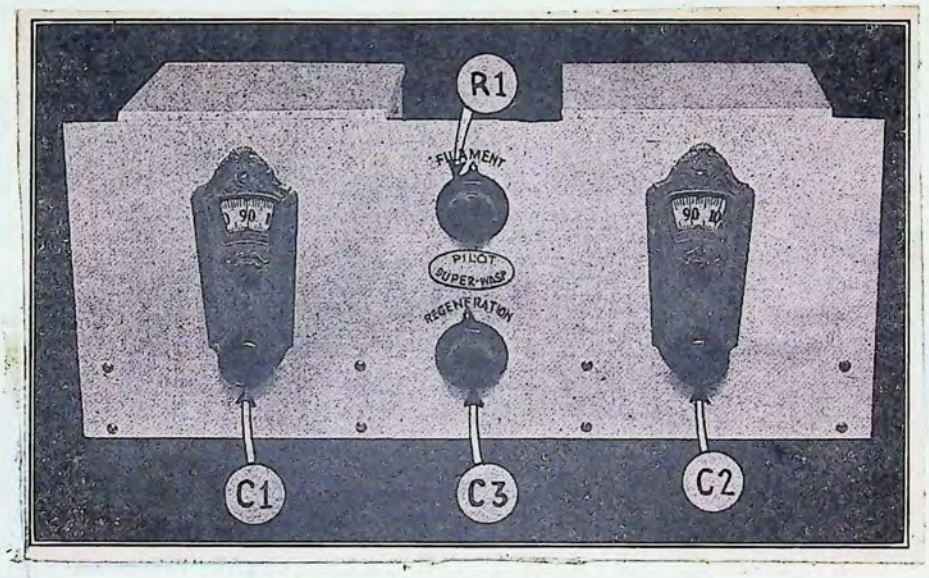
Robert Hertzberg, the author, David Grimes and John Geloso, pilot engineers who helped develop the A.C. Super-Wasp

Few, if any, vintage radio hobbyists will deny that of all the early short-wave receivers, the PILOT "Super-Wasp" was far and away the most popular. Goldberg's talent for surrounding himself with leading lights in the radio engineering fraternity contributed greatly to the rise of PILOT, and we have all benefited.

The clever conception of Sleeper's "Redi-Blox" has already been mentioned, and Grimes was flexible enough to move on from his Inverse Duplex circuitry to a better one. Geloso returned to Italy shortly after the "Super-Wasp" caught-on, to set-up Geloso Electronics, and produce communication-type receivers and transmitters - which were very elegant looking sets, but their performance left much to be desired, in terms of other receivers available at that time.

In terms of performance, I have found little difference between the AC and Battery models of the "Super-Wasp". The most noticable difference seems to be that the AC version had more volume, as well as an AC hum now and then. The coils used do show-up at swap-meets from time to time, and you should keep an eye out for them. Identification of the pairs is shown in the following pages; it is essentially a matter of simply counting the turns of wire, and matching one coil with another. Good luck.

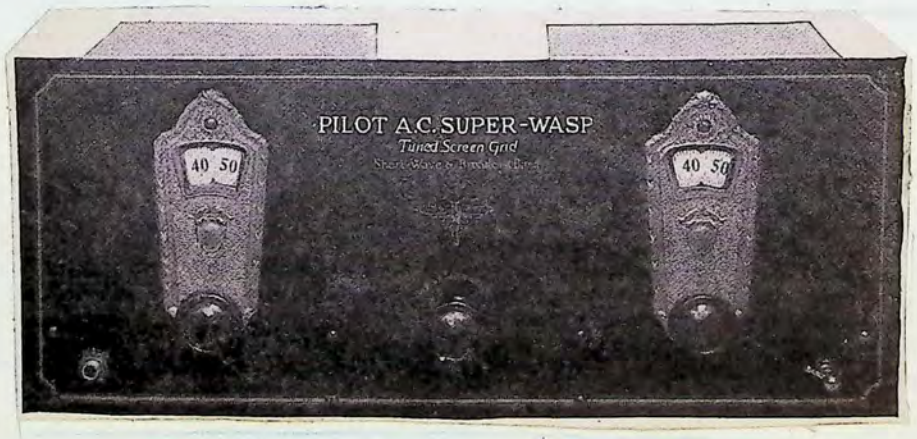
(Sht. 1) PILOT "SUPER WASP" SW. RECEIVER, 1929/1930



1929 PILOT "SUPER WASP", BATTERY MODEL

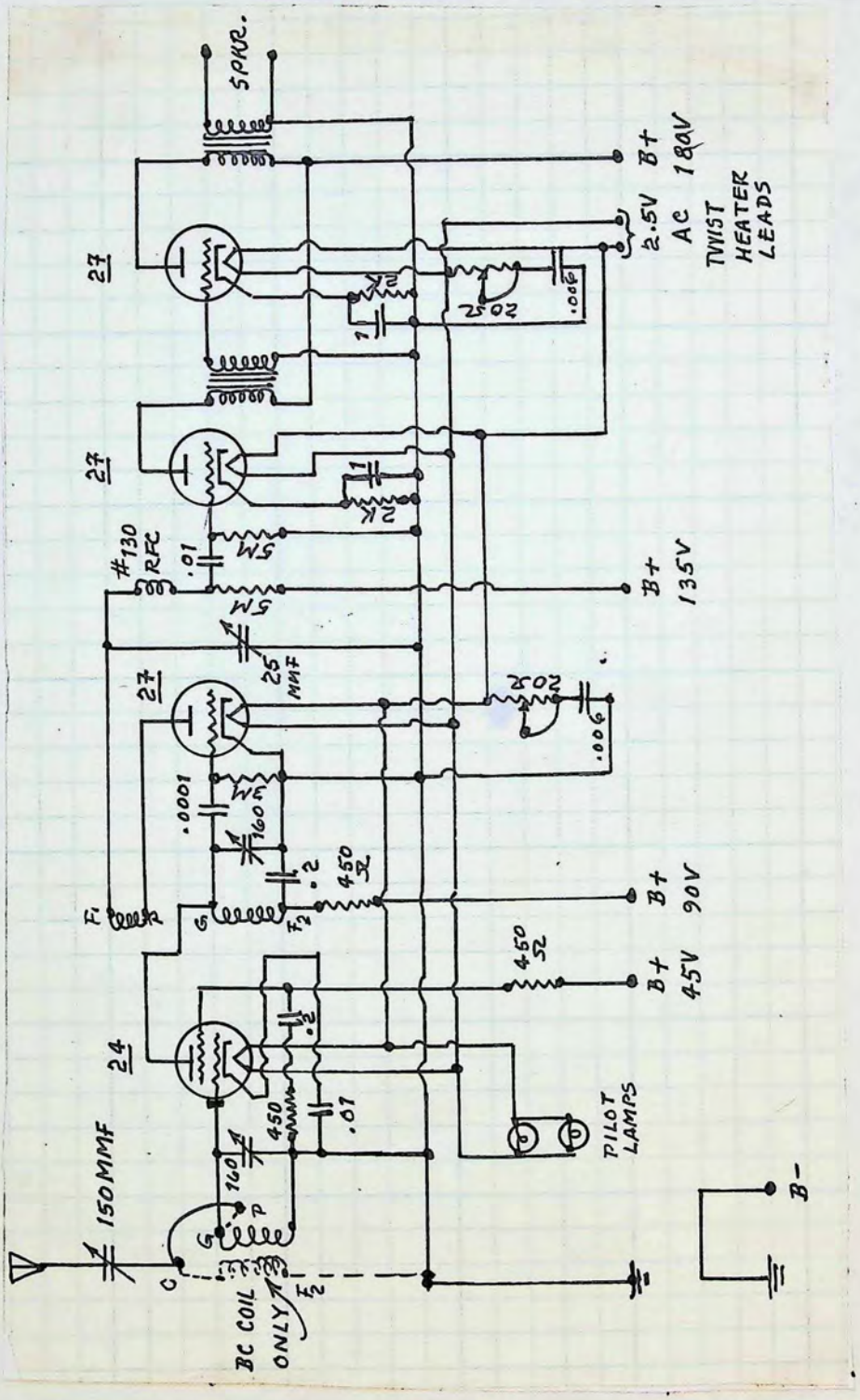
R1 = FIL Rheostat 6-ohms, #906.
C1, C2 = 160 MMF VARIABLES, #1608.
C3 = REGENERATION CONTROL, 5-plate Variable, #J5.

Range - 14 to 500 Meters, Both Versions.

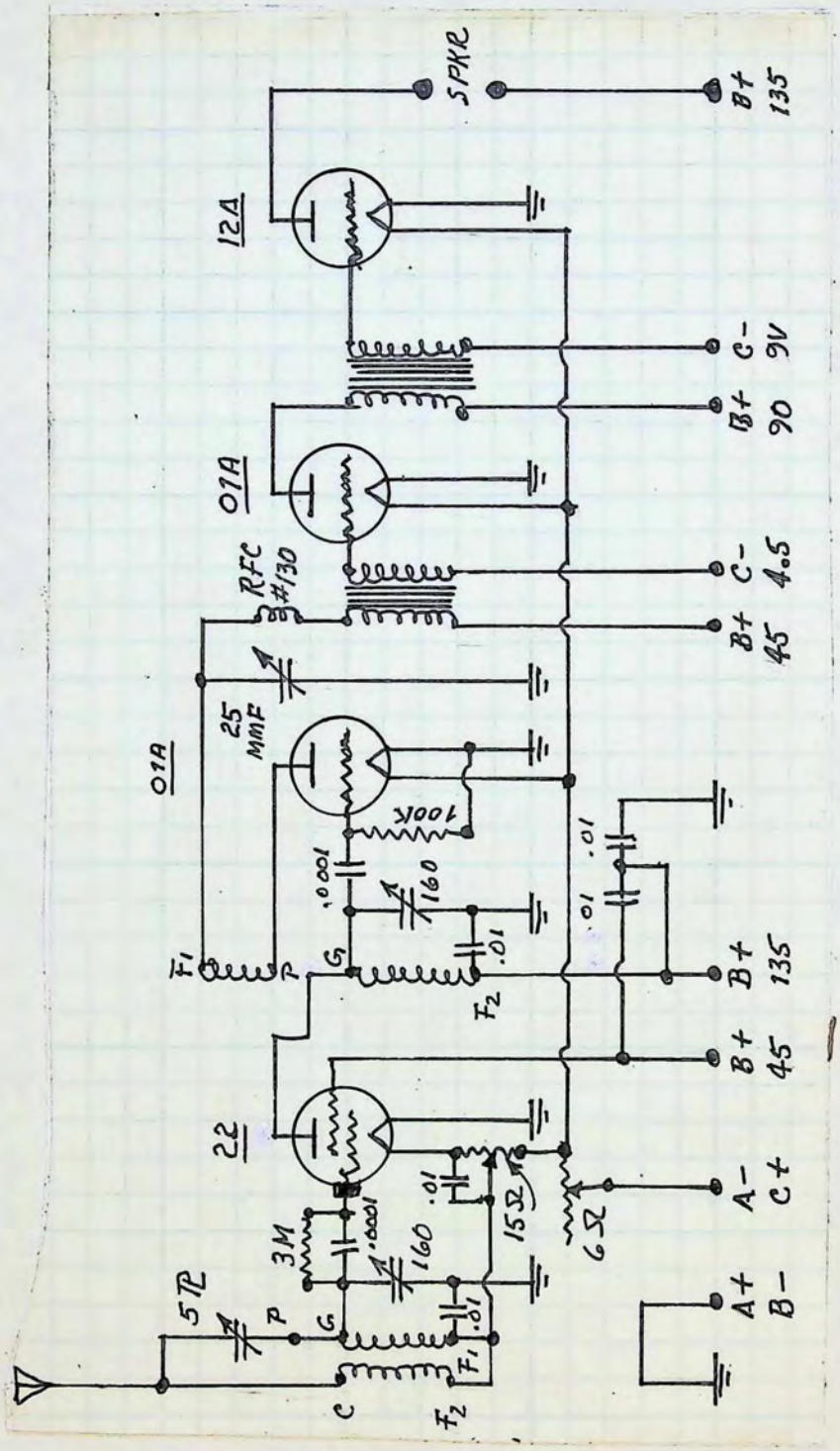


1930 PILOT "SUPER WASP", AC MODEL

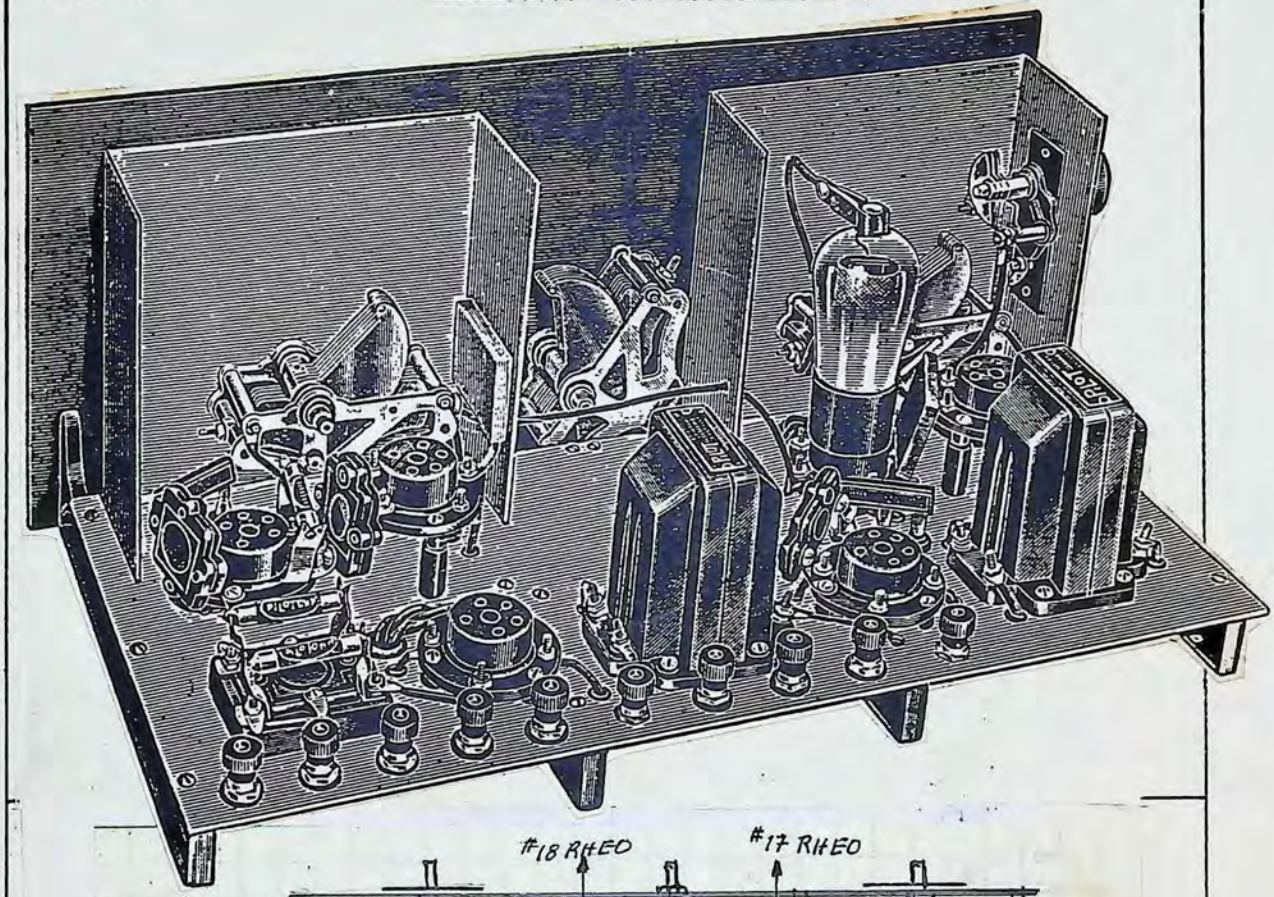
(Sht. 2) PILOT "SUPER WASP" SW RECEIVER, 1928;AC Model

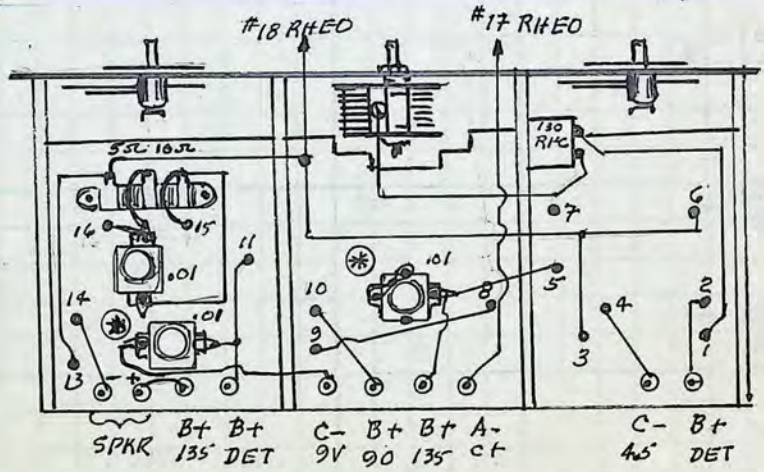


(Sht. 3) PILOT "SUPER WASP" SW RECEIVER, 1929; Batt. Model



(Sht. 4) PILOT "SUPER WASP" SW RECEIVER, 1929



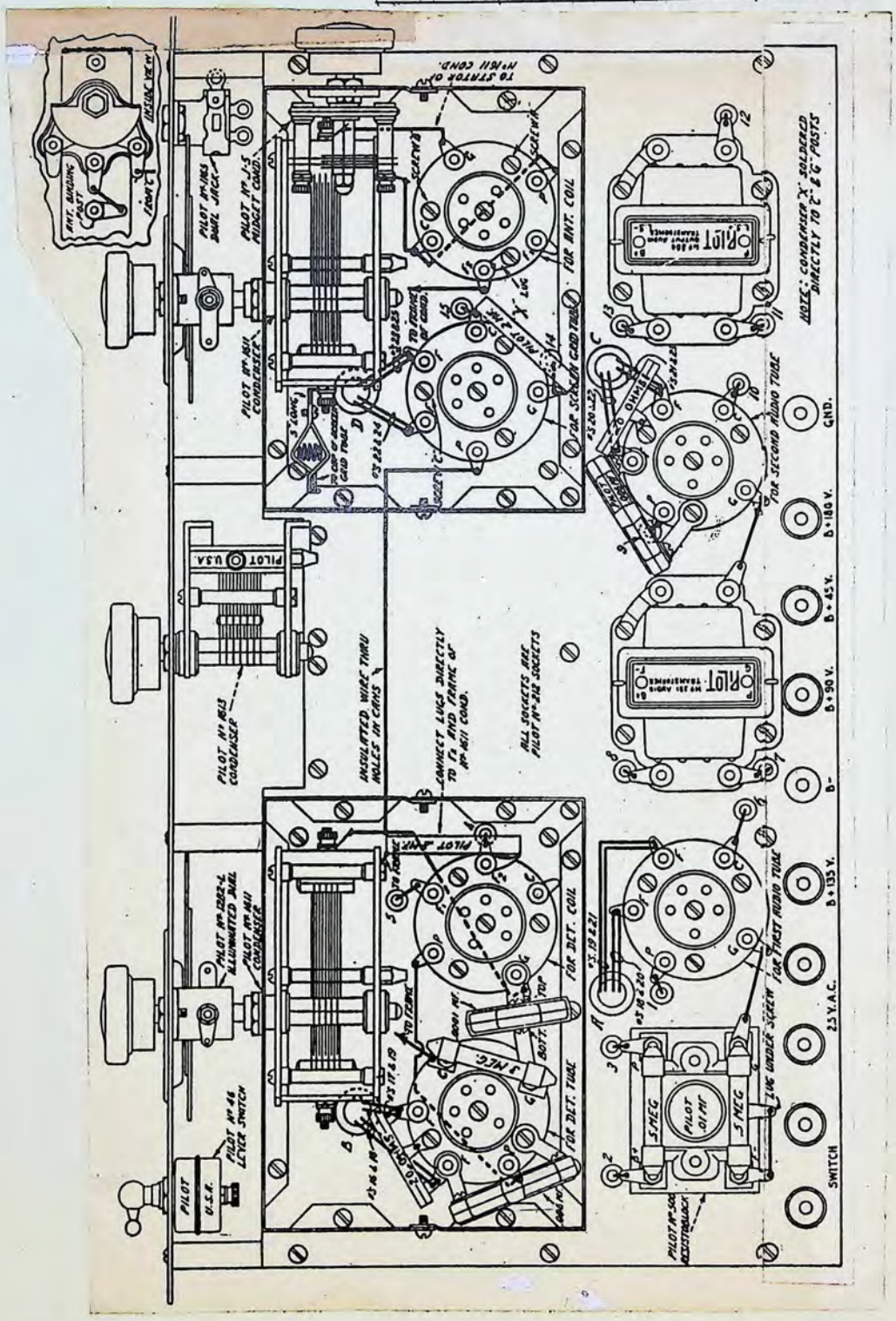


(*) = 1/4" Hex Spacer under all (3) .01 MFD condensers, & solder lugs together as shown; 2 Plcs.

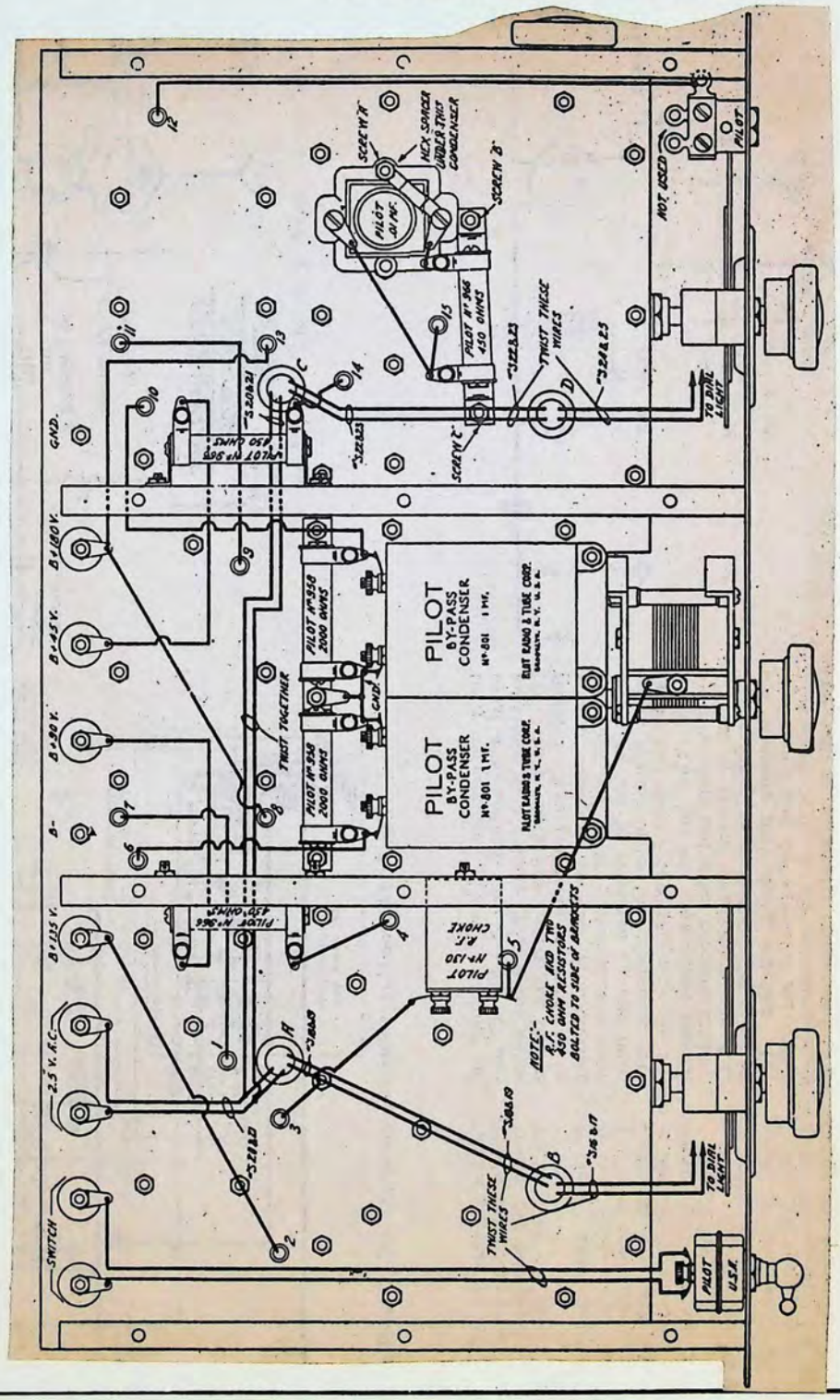
BOTTOM VIEW • BATT. MODEL

(RC 1-30)

PILOT "SUPER-WASP" PLAN VIEW; Sht. 5

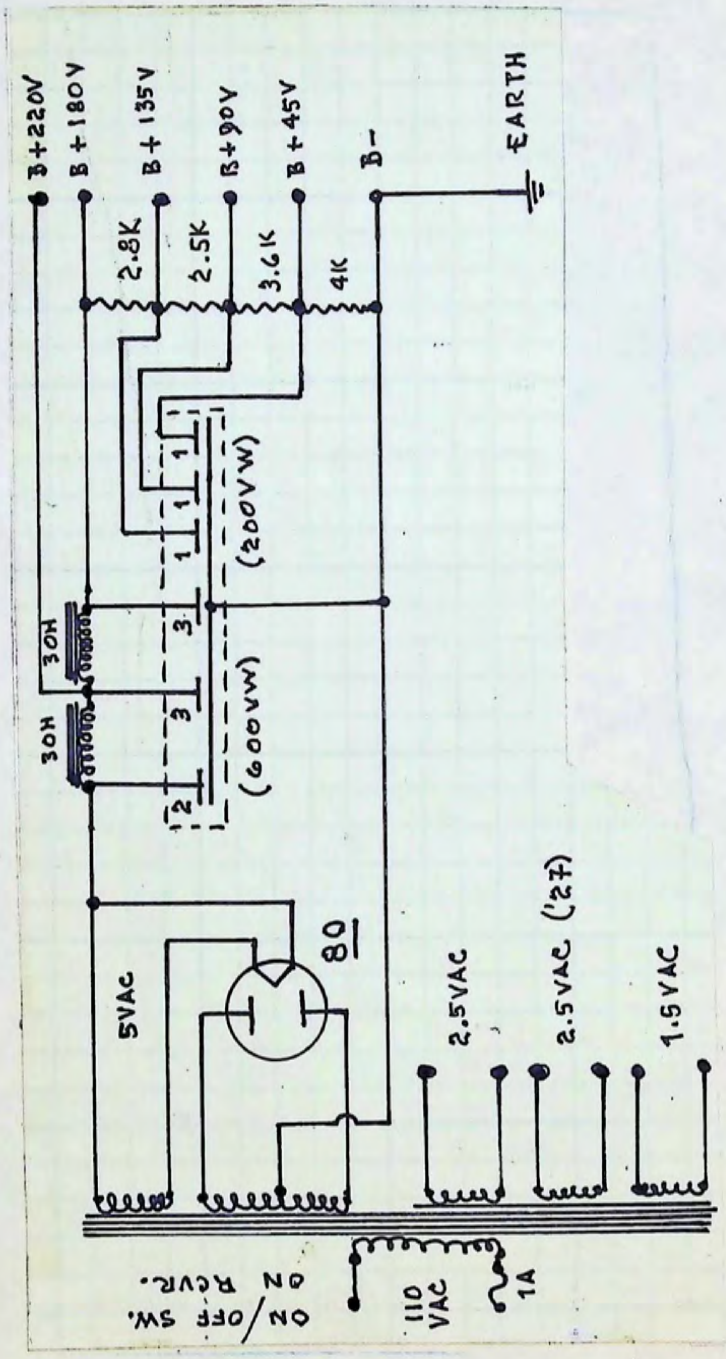


PILOT "SUPER-WASP" BOTTOM VIEW; Sht. 6



NOTES

PILOT "SUPER-WASP" POWER PACK, 1929; Sht. 7



WARNING!

Do Not Attempt To Lower Voltages!

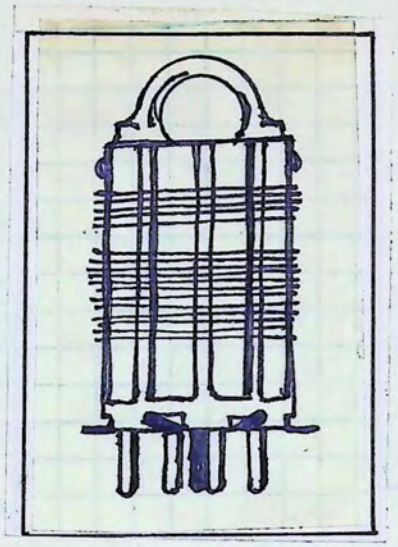
ACTUAL VOLTAGES DELIVERED

90V TAP - 175V
45V TAP - 65V
135V TAP - 170V
180V TAP - 190V

(RC 1-30/7-29) (RN 1-30)

(Sht. 8)

PILOT "SUPER WASP" COIL DATA



NOTES:

1. All coils wound with #24 DSC wire, except Blue coloured form, which used #28 DSC.
2. INPUT coil turns = sec; no PRI required.
3. Spacing between PRI and SEC = .125".

Coil Colour:	Range:
Red	14-27 Meters
Orange	26-50 "
Yellow	48-100 "
Green	100-200 "
Blue	200-500 Meters

INPUT COILS ('22)

Colour:	No. of Turns:
Red	4.5
Orange	9.5
Yellow	20.5
Green	46.25
Blue	128.00

OUTPUT COILS ('22)

Colour:	No. of Turns: PRI	SEC
Red	4	3.5
Orange	6	7.5
Yellow	7	17.75
Green	15	45.75
Blue	25	106.00

(Sht. 9)

PILOT "SUPER WASP" NOTATIONS

Preliminary tuning of either model "Super Wasp" was best done with head-phones. When the signal was a point below regeneration, the ideal point, and there was now roaring, you then plugged in a speaker, using the speaker thereafter.

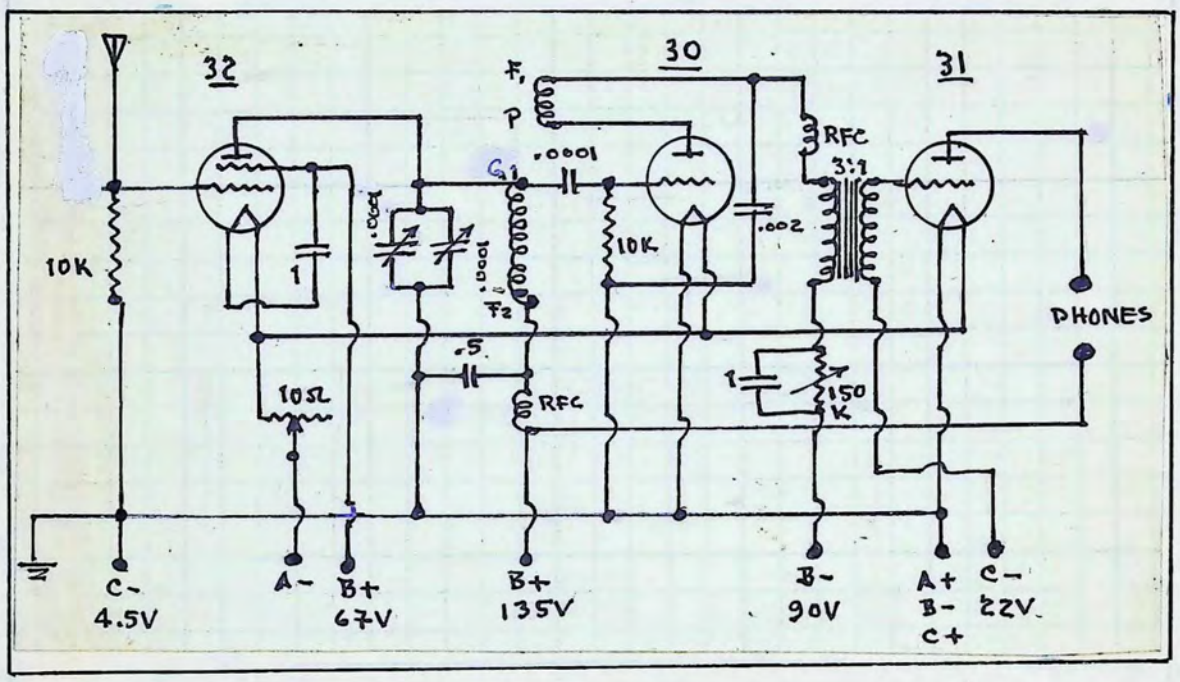
However, contrary to modern myths about the exceptional DX-ing capabilitiy of the "Super Wasp", the set would never give 100% loud-speaker reliability.

There was also the PILOTRON 27 tube, a special 27 tube designed specifically for SW receivers. Using an ordinary 27 for the DET of the "Super Wasp" would result in a terrible roaring on the critical point of regeneration, which was where the best SW reception is found with the early sets. The claim was justified as having tried both, the PILOTRON 27 was superior.

What seperated the PILOTRON 27 from other tubes of the 27 class was a hairpin filament inside the "K" (cathode), instead of the usual straight wire; result being a reduction in a 60-cycle modulation of plate current, but without deleting it entirely.

* * *
* *
*

PILOT SW. REGENERATIVE RECEIVER, 1929



A CONVENTIONAL 2ND AF STAGE MAY BE ADDED.

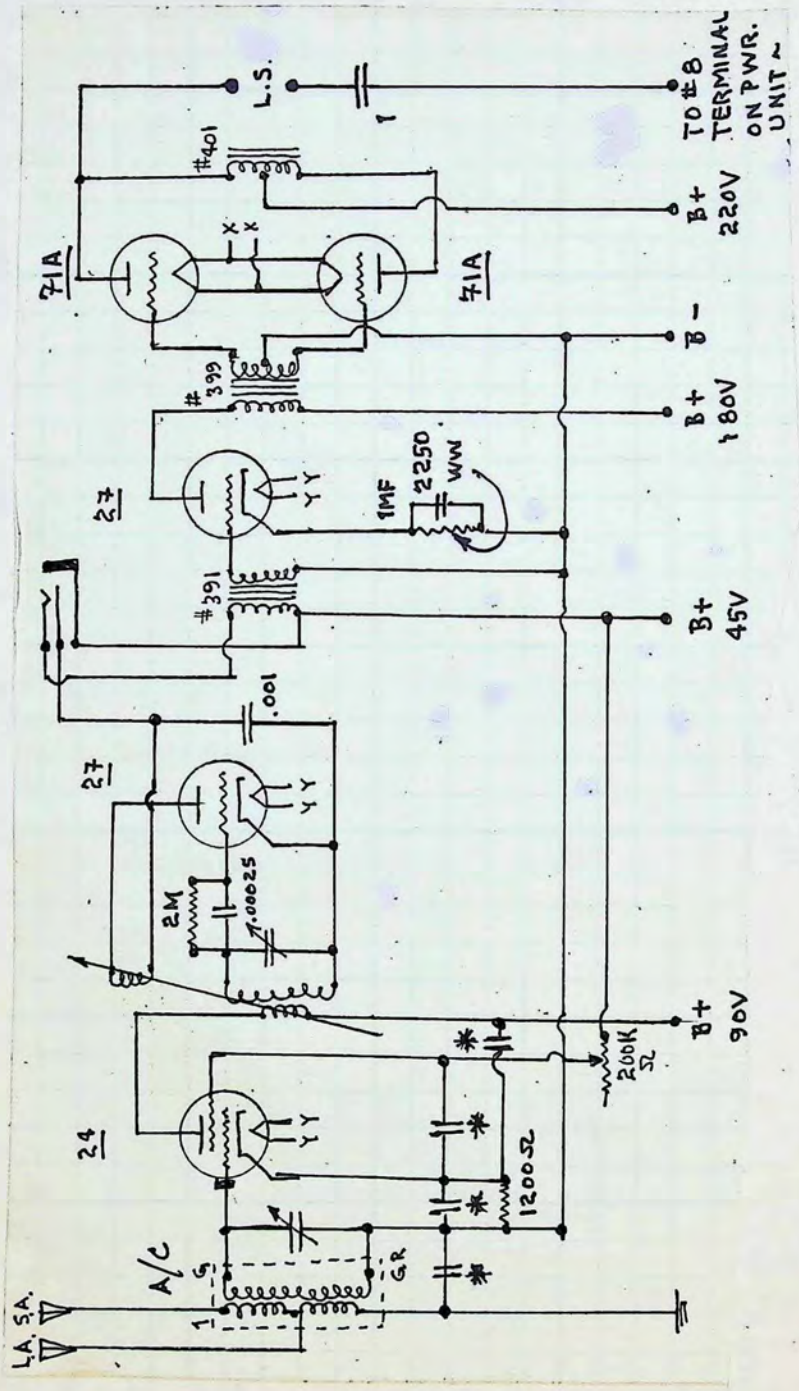
PILOT COILS WERE OF THE 4-PRONG TYPE.

TUBES WERE 2V, DRY-CELL OPERATED.

ALL COMPONENTS WERE PILOT MANUFACTURED.

(Sht. 1)

PILOT SCREEN-GRID MODEL 105, 1928



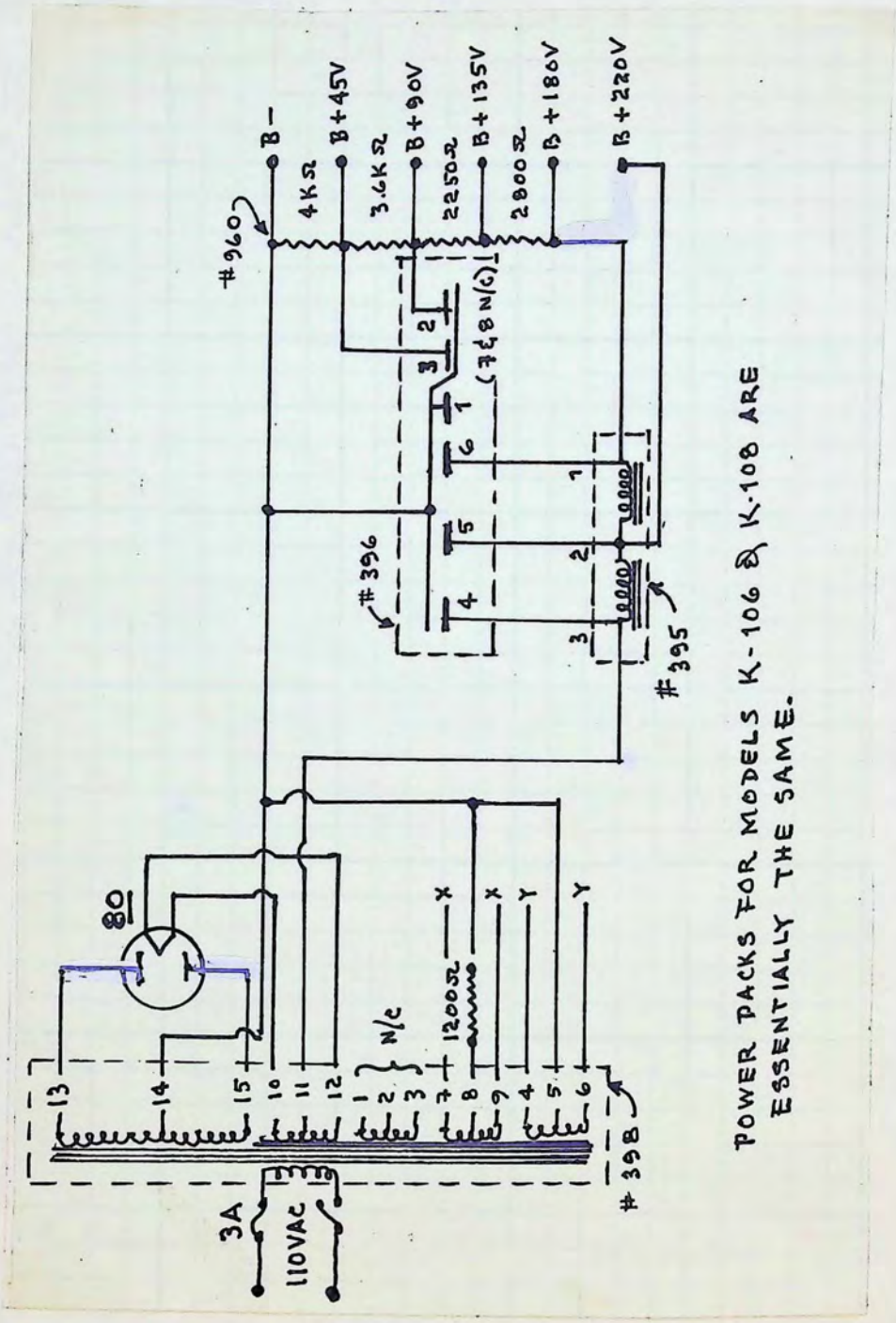
* = 4 .01 MFD MICA CONDENSERS IN A SINGLE UNIT.

A/C - PILOT ANT COUPLER NO. 222-A.

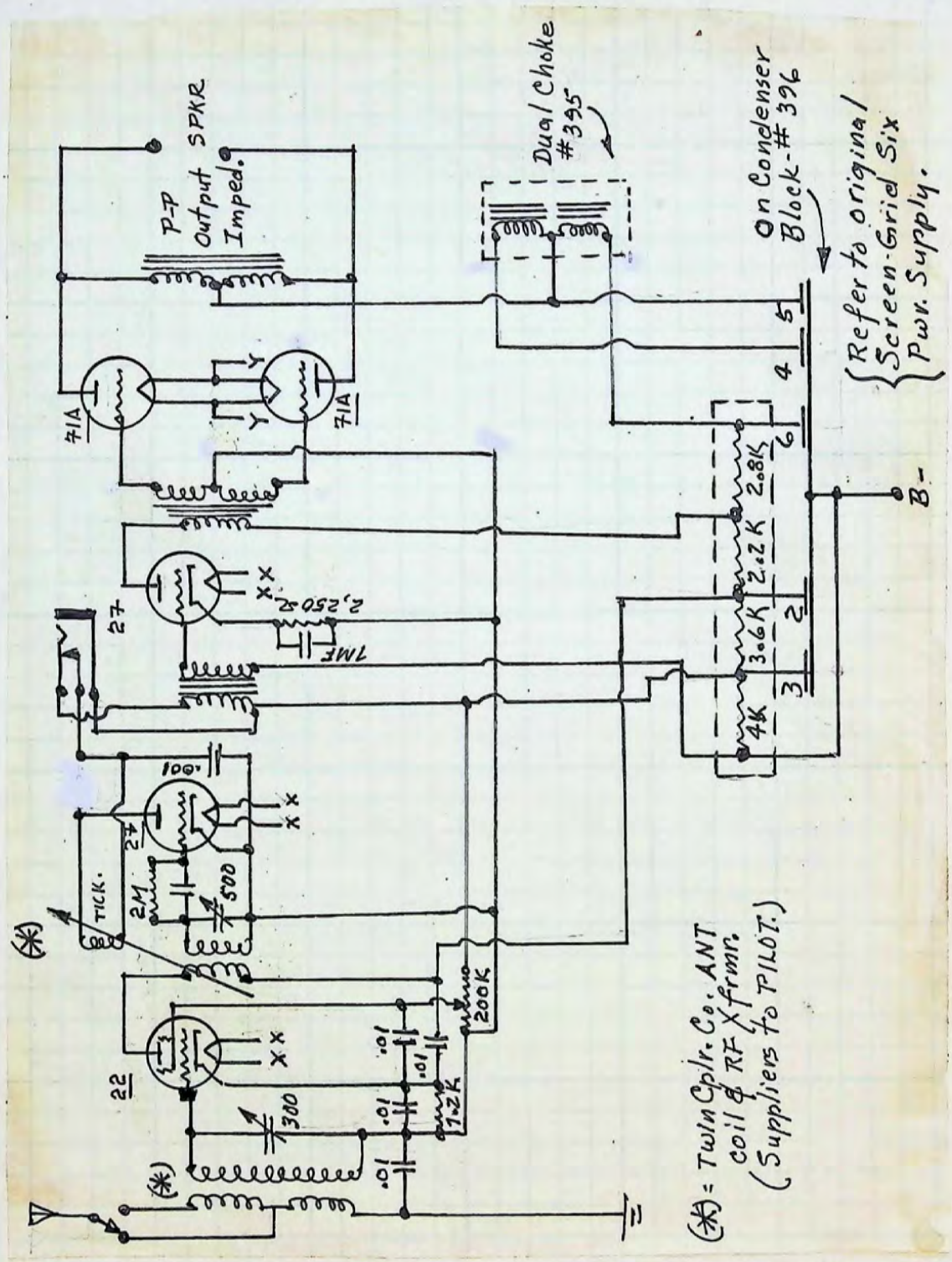
ALL 3-DIGET NOS. ARE PILOT NUMBERS.

(Sht. 2)

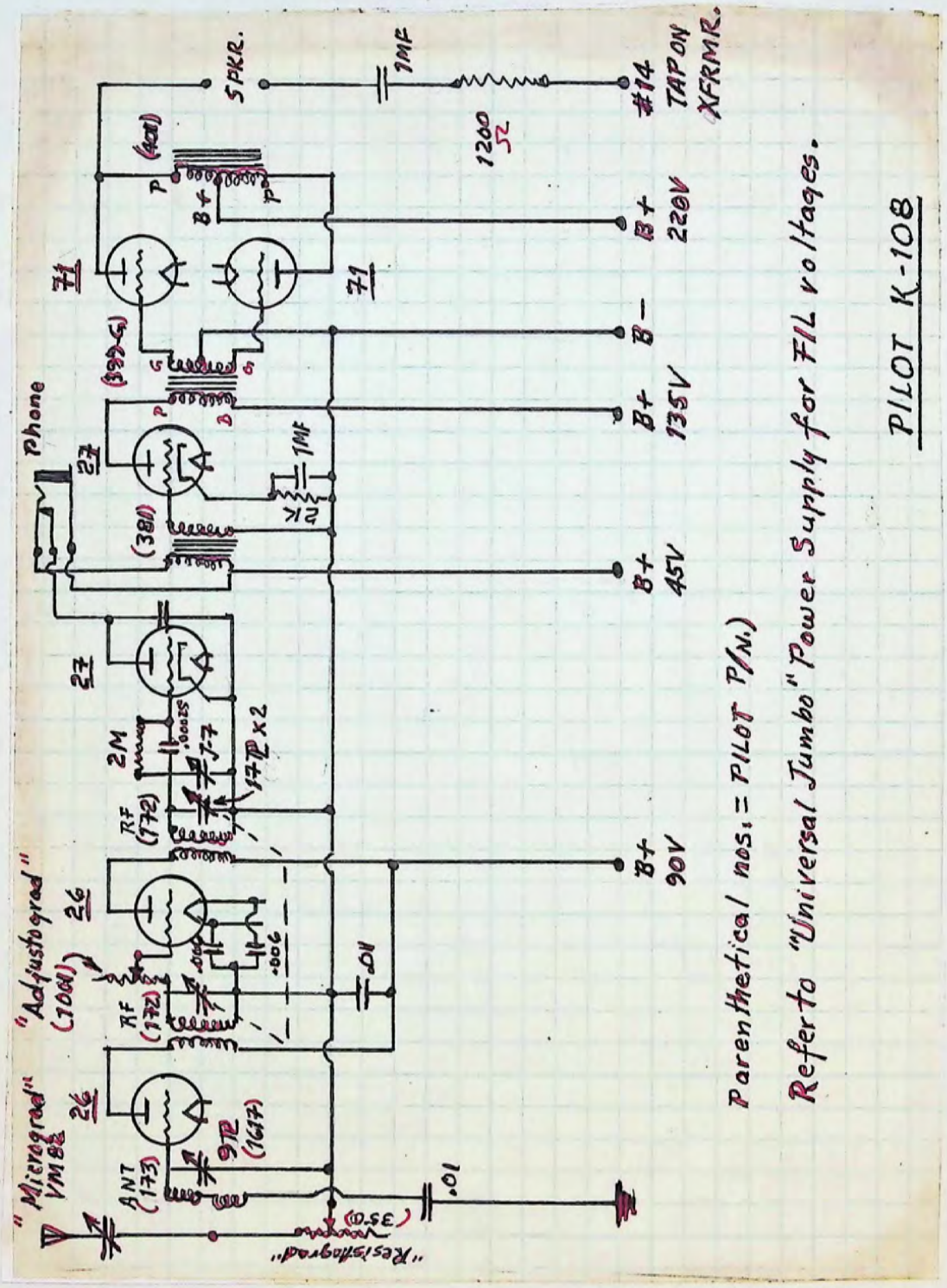
PILOT SCREEN-GRID MODEL 105, 1928



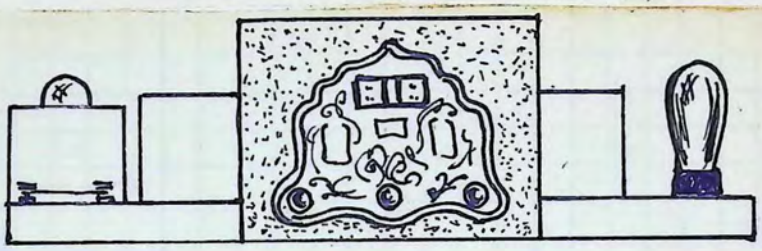
IMPROVED PILOT AC SCREEN-GRID SIX; 1929

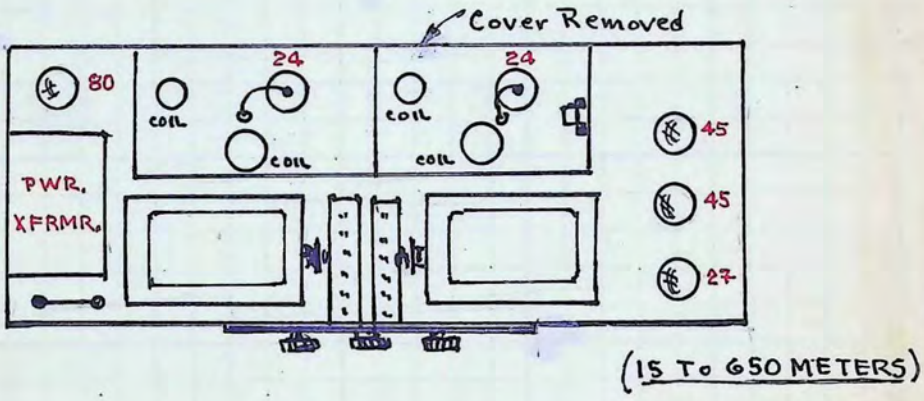


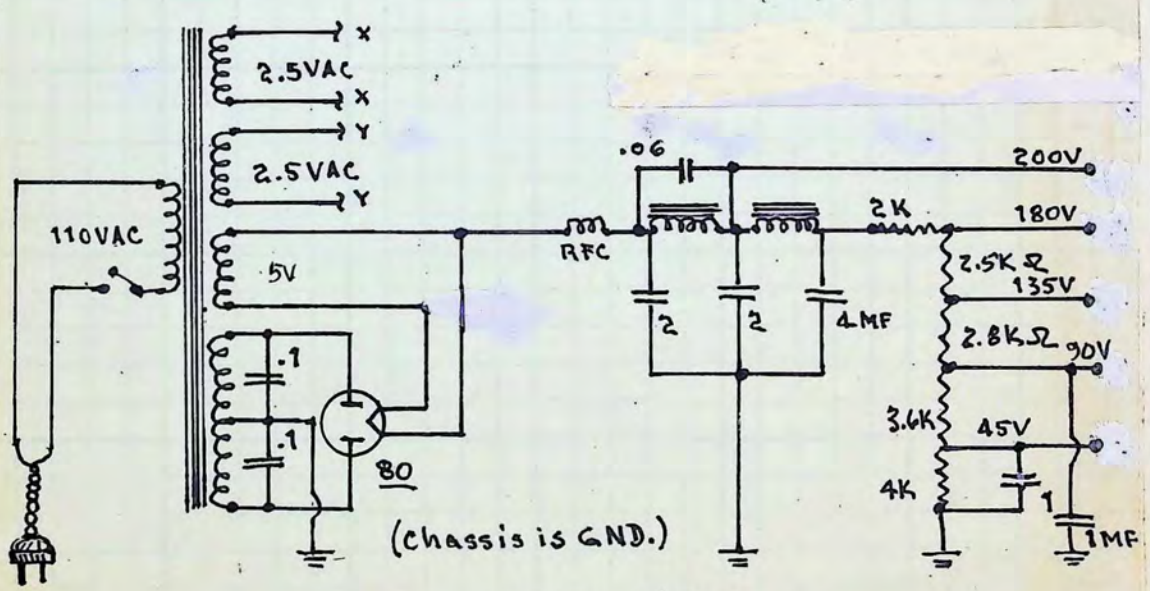
PILOT K-108 BC RECEIVER, 1928



(Sht. 1) PILOT "UNIVERSAL SUPER-WASP" RECEIVER, 1929

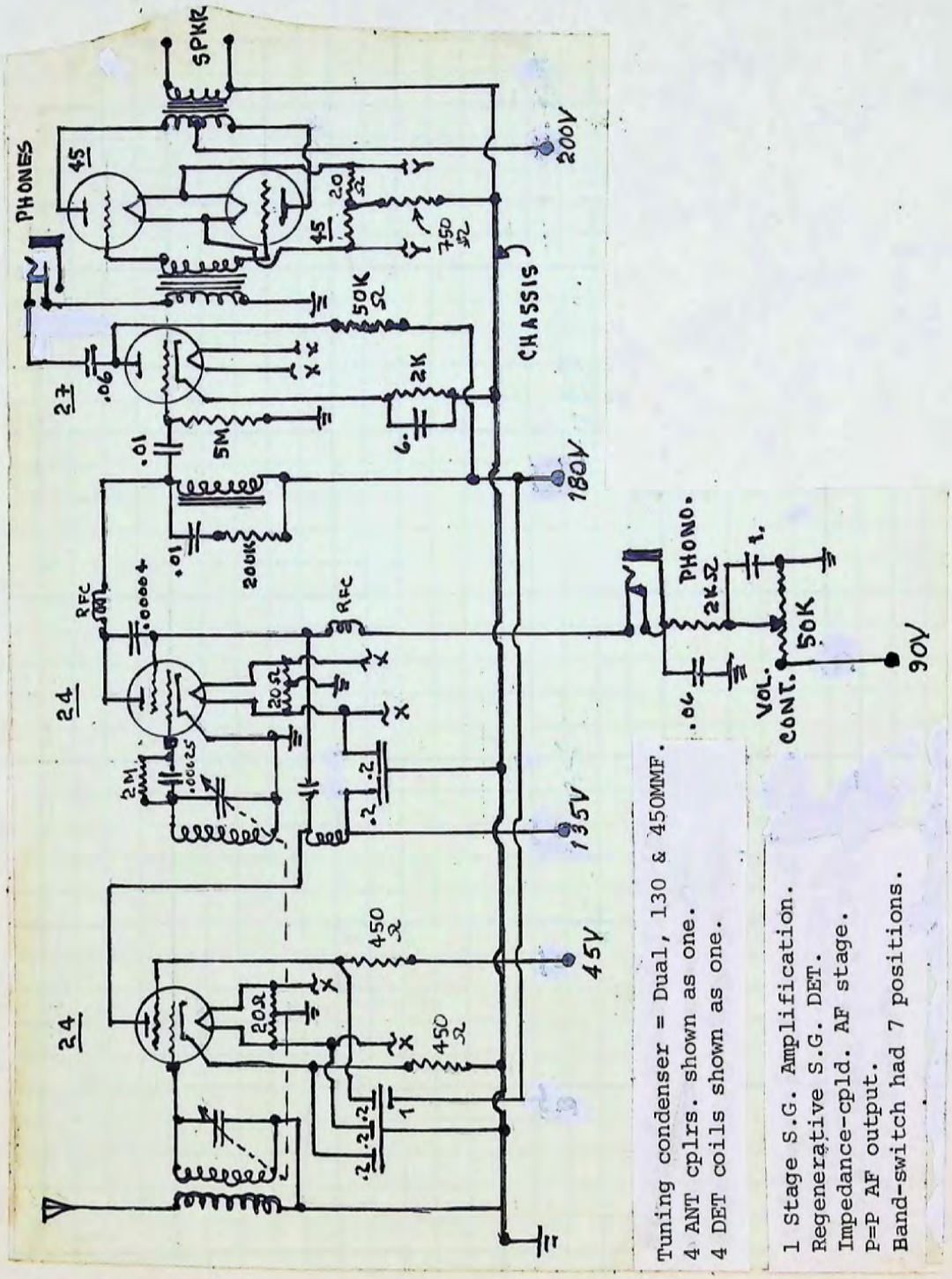






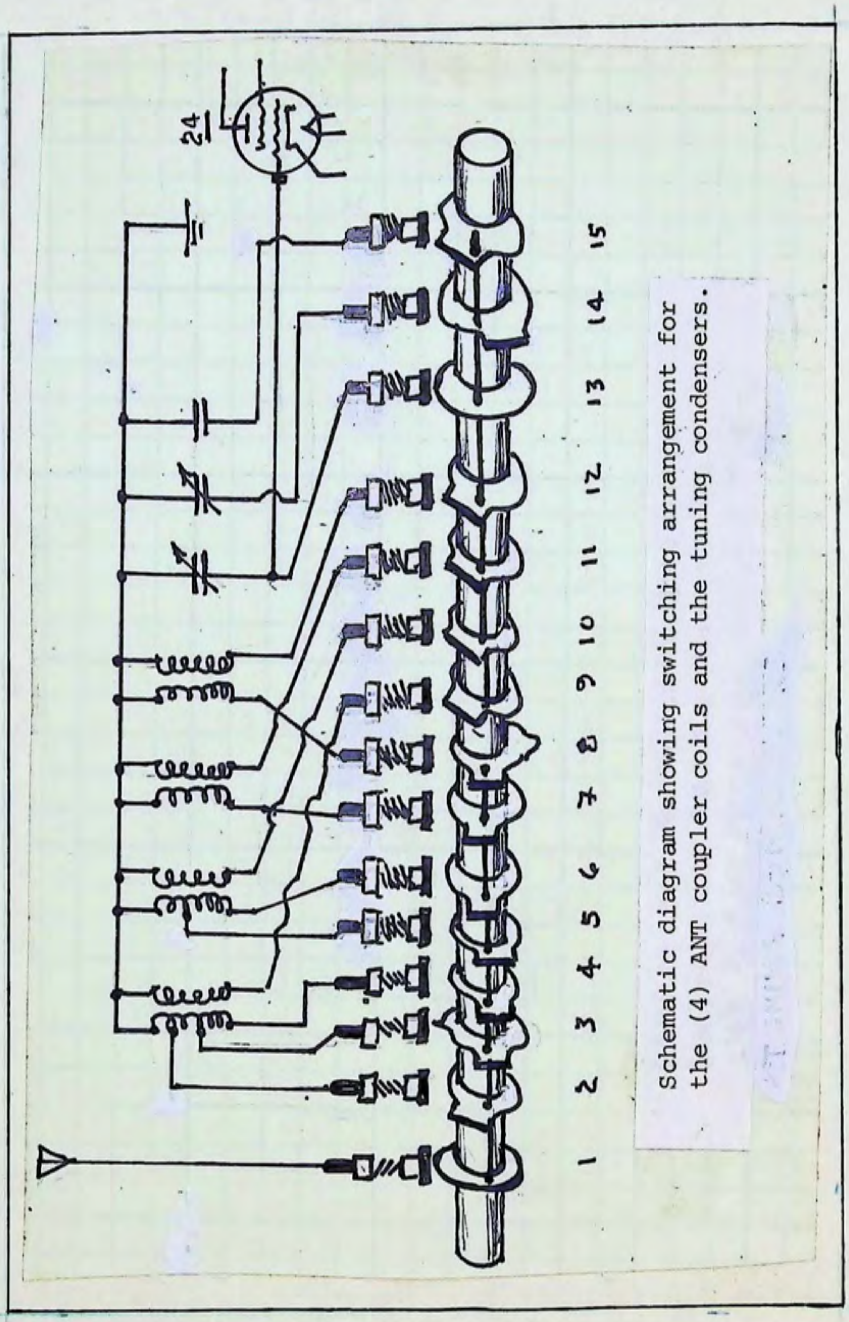
POWER SUPPLY

(Sht. 2) PILOT "UNIVERSAL SUPER WASP" RECEIVER, 1929



(Sht. 3)

PILOT "UNIVERSAL SUPER WASP" RECEIVER, 1929



Schematic diagram showing switching arrangement for the (4) ANT coupler coils and the tuning condensers.

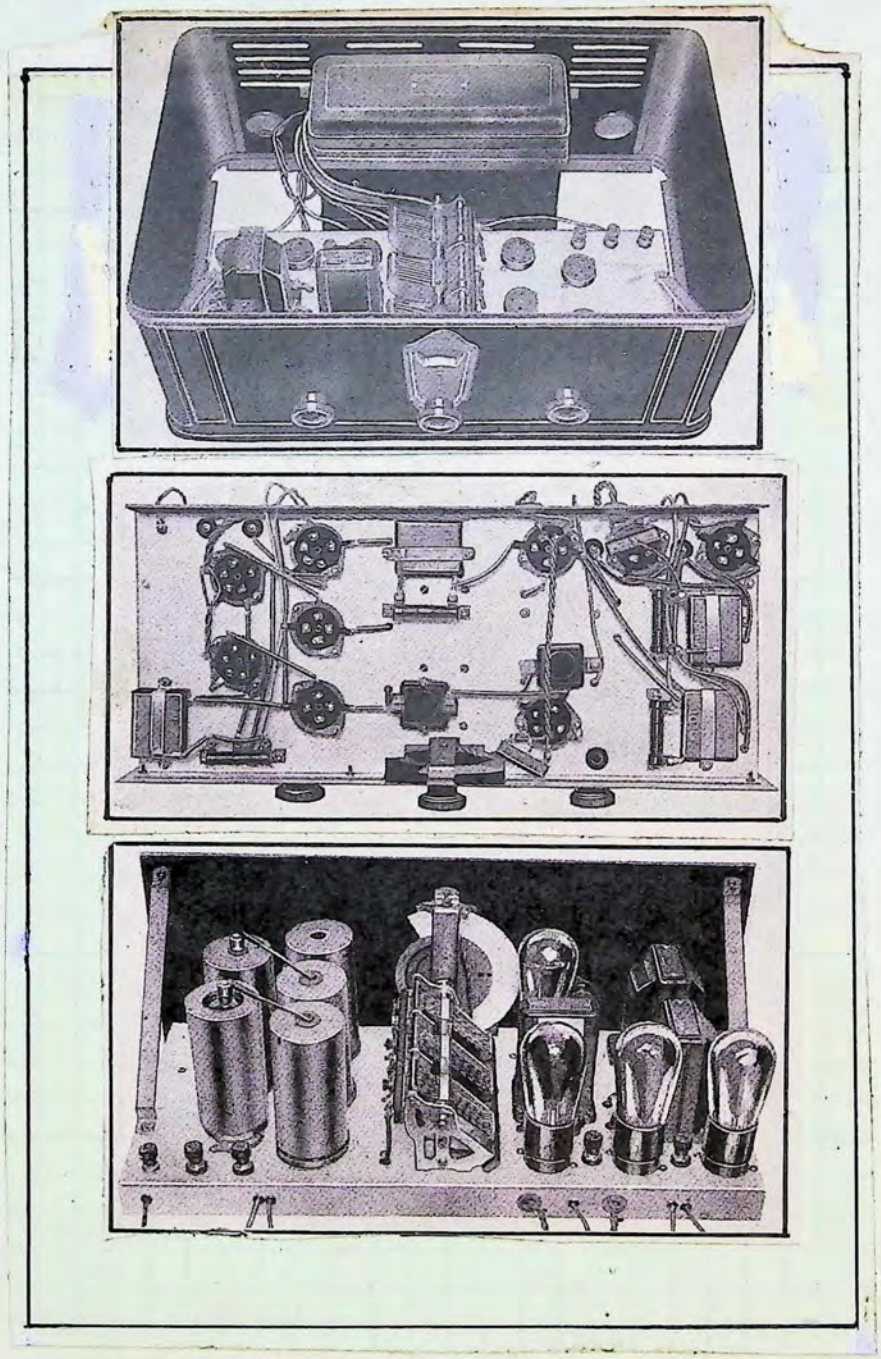
NOTES

PILOT'S "FLYING LAB"

Airplane radio communication is being aided by Pilot's Airplane (Station 2XBQ) enabling ground stations to inform planes while aloft of weather conditions en route and also to direct pilots "flying blind" in fogs.

(Sht. 1)

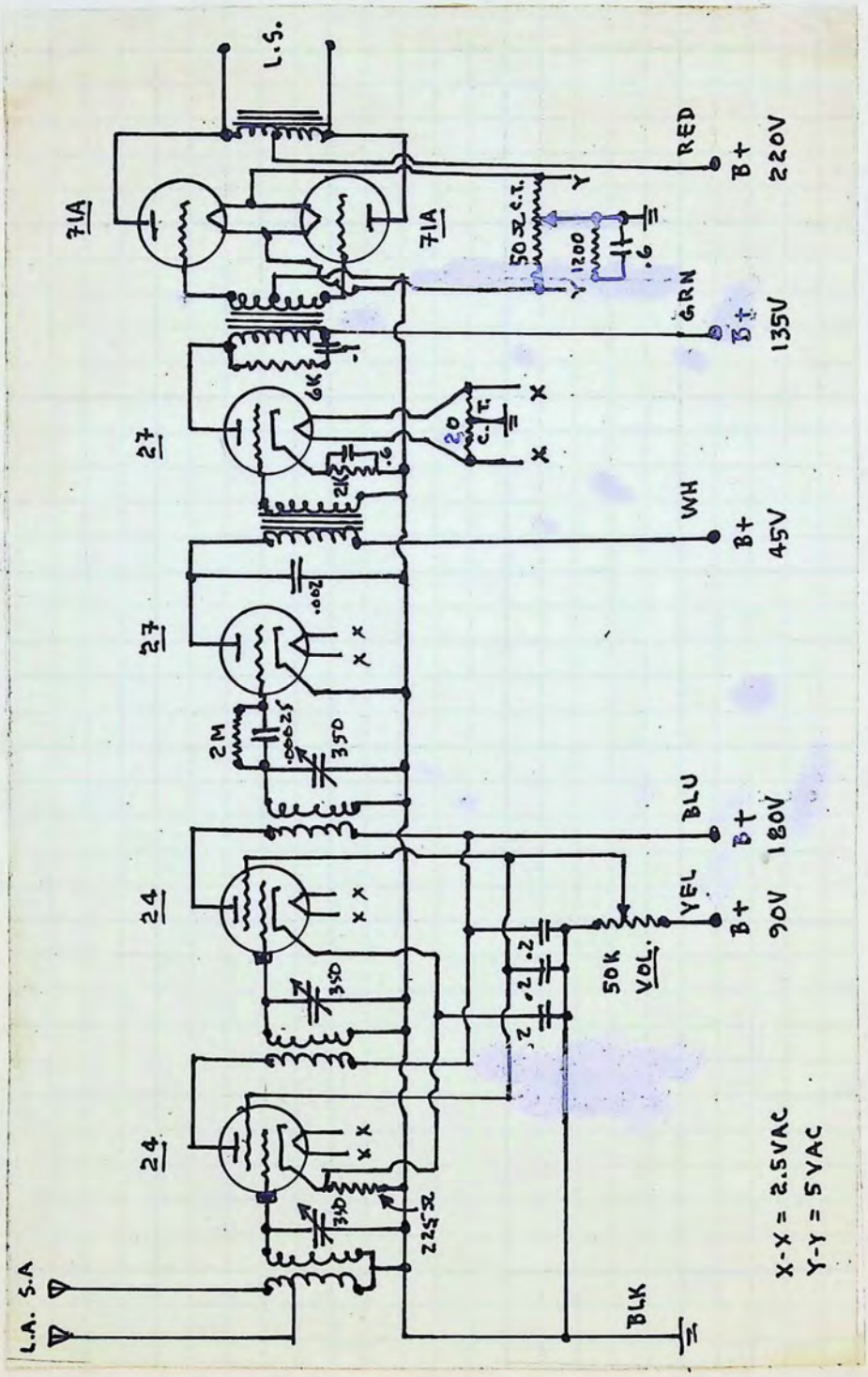
PILOT P-E-6 S.G. BC. RECEIVER, 1929



Originally offered in three kit versions. Metal cabinet 19x12x9.

(CB 1-30)

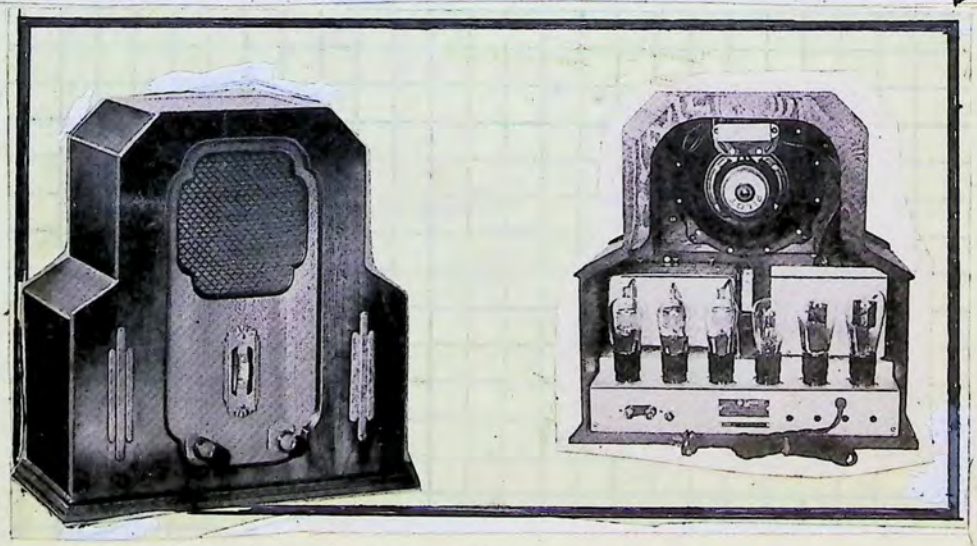
(Sht. 2) PILOT P-E-6 S.G. BC. RECEIVER, 1929



PILOT MIDEGT, 1931; $60

AC Tube Complement = Same as Above.
DC Tubes = (4) 01A, (2) 71A.

Cabinets for both models were 2-tone mahogany and veneers.

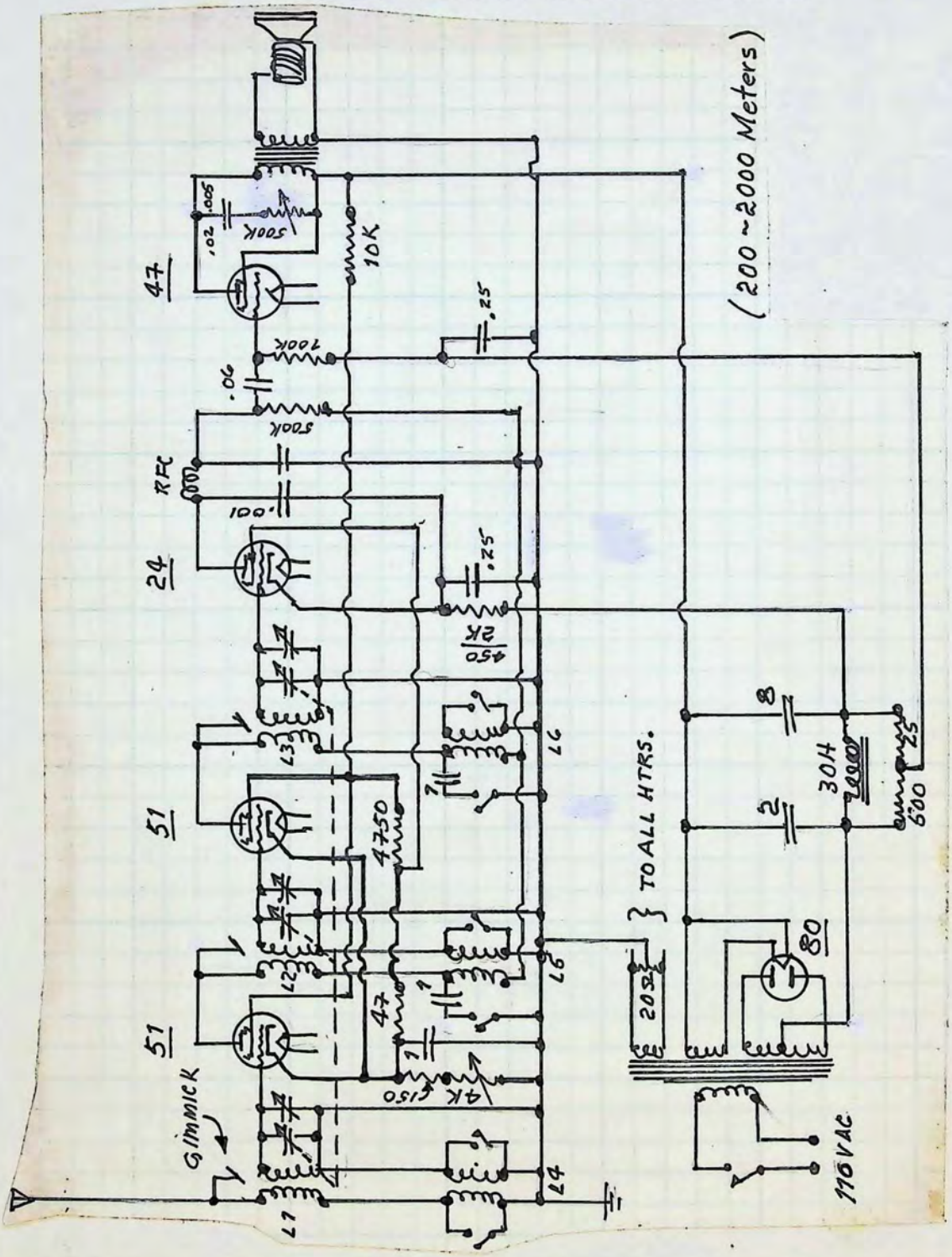


PILOT MIDGET, 1930: $60

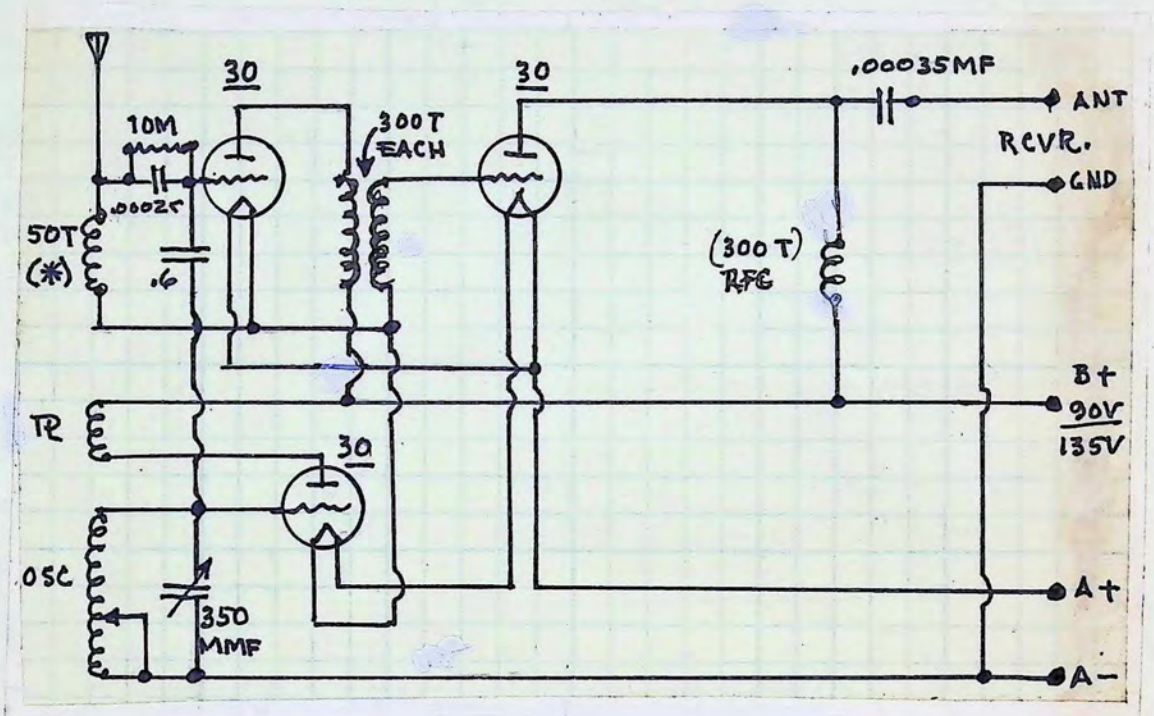
Tubes = (3) 24, 27, 45, 80
Cabinet = 17" x 17" x 8"

6" Dynamic Speaker; Field Coil Was Part of the Filter System.

PILOT DUAL MIDGET TRF RECEIVER, 1931



PILOT "DRAGON" SHORT-WAVE CONVERTER, 1932



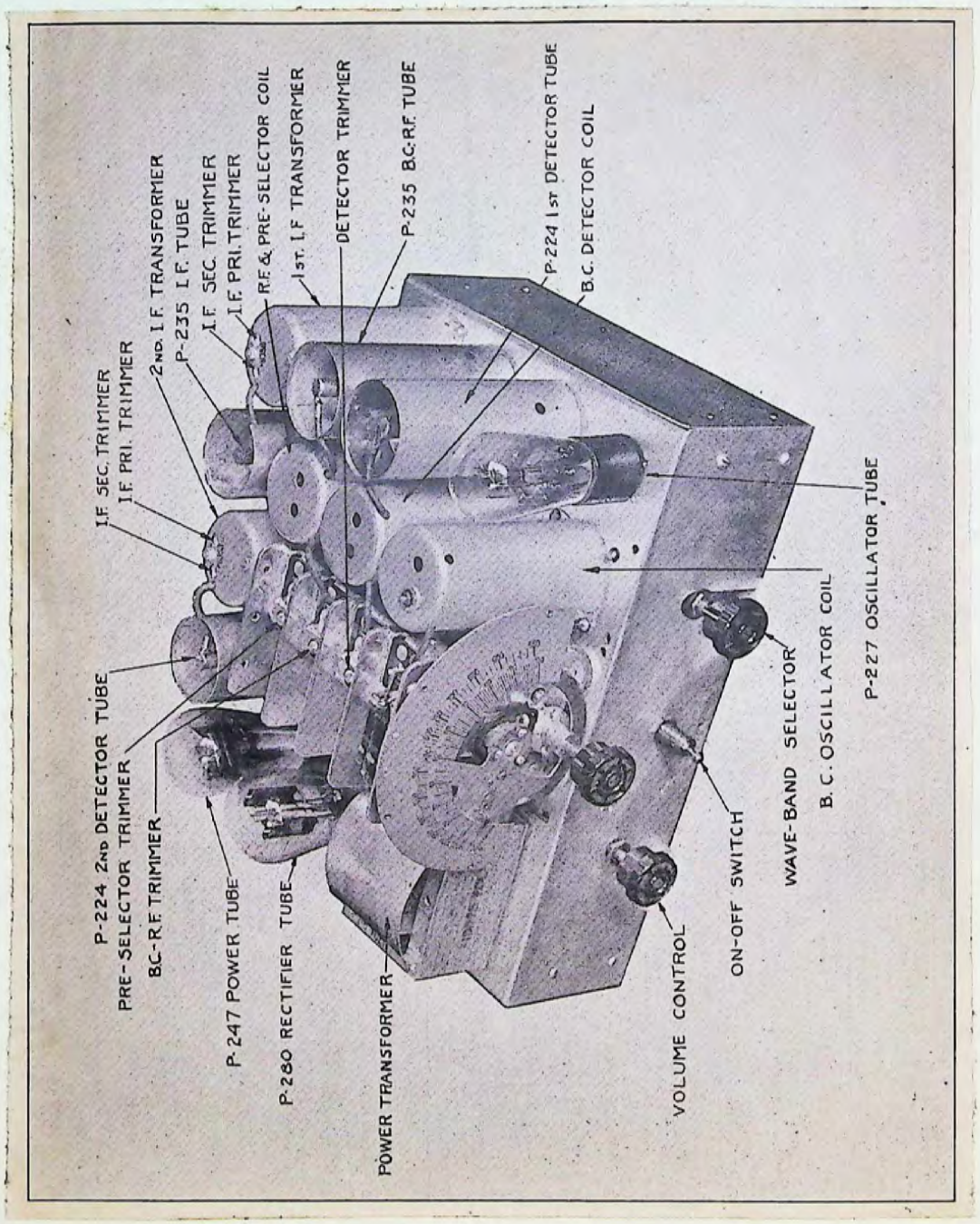
(*) = or: 100T #40 Enamelled wire on .375" wood dowel.

COILS = 2" Ø midget honeycomb.
PANEL = 5" x 6" x 3/16".
6-Wire cable with plug.

PLATE COIL = 20T insulated fine wire, 1/16" separation; wound in same direction as grid coil.

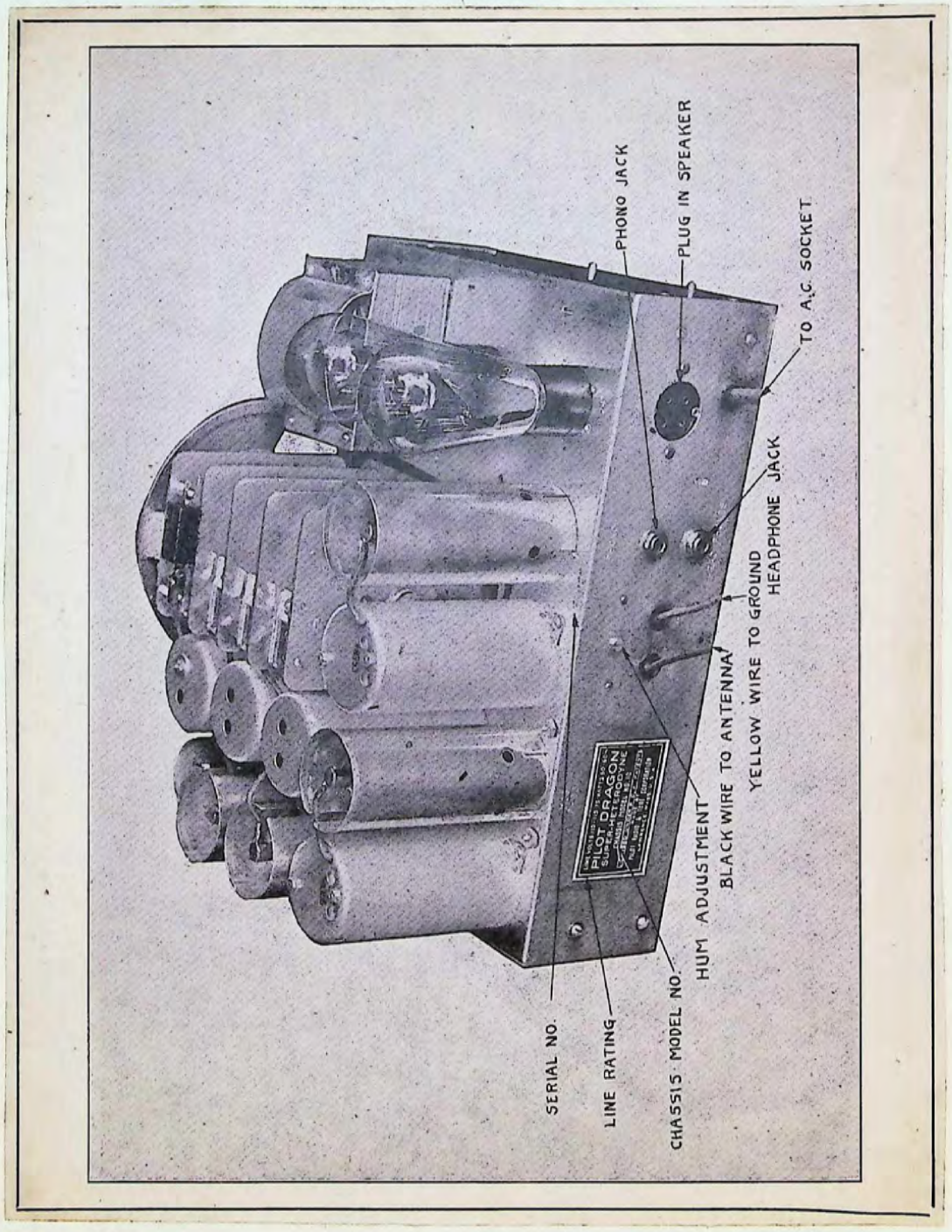
OSC. COIL = #28 Enamelled wire tapt at 8T from GND. end.

Both coils wound on same form.



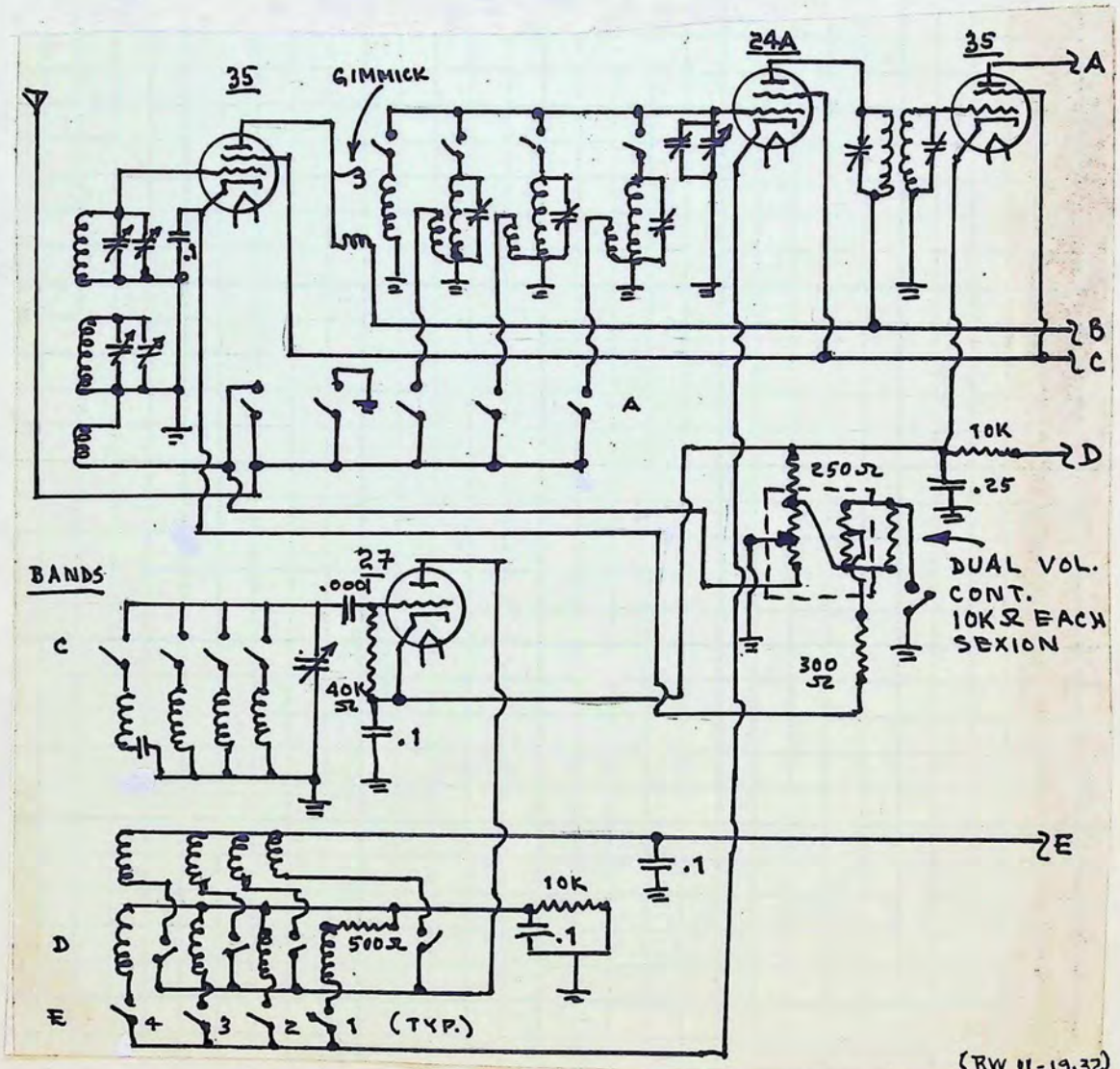
Pilot Dragon.

PILOT "DRAGON" SW RECEIVER, 1932

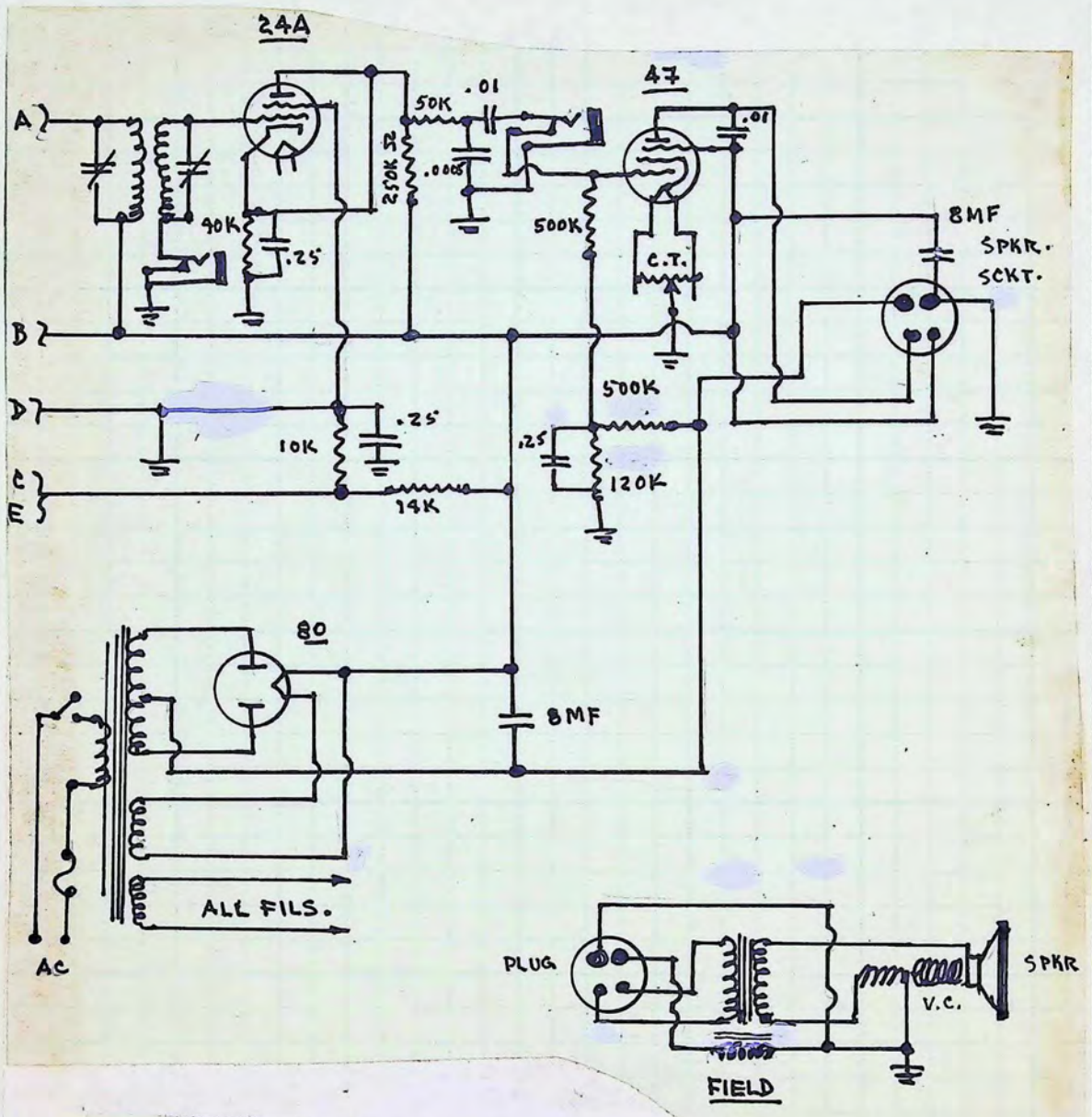


NOTES

(Sht. 2) PILOT "DRAGON" Model 10 SW. RECEIVER, 1932



(Sht. 3) PILOT "DRAGON" SW RECEIVER, 1932



PLAN VIEW OF ALL I.F. COILS

(Sht. 4) PILOT "DRAGON" SW RECEIVER NOTATIONS

There were two "DRAGONS", both known as Model 10, and designated 'Monarch' and 'Emperor'. The basic circuitry of the Model 10 was utilised, with minor alterations, in the following PILOT sets:

Chassis No.	Designation:
39	20th Century
39	Golden Arrow
43	Twin-Coupler Brand Liberty (*)
43	Armada
51	Twin-Coupler Rainbow
55	Corsair
55	Twin-Coupler Capitan

(*) = The Twin-Coupler company of Up-State New York was the coil manufacturer for Pilot. The company was actually a subsidiary of the German cutlery-manufacturing firm of the same name, and which is still in operation today, world-wide. The New York firm also produced and merchandised several SW coil assemblies, of the horizontally mounted type with a fixed PRI, under their own name and symbol.

GENERAL NOTES:

1. In each of the 3 switch positions, the set operated as a 6-tube super-het with a single OSC tube. The ANT was then coupled to the DET coil.

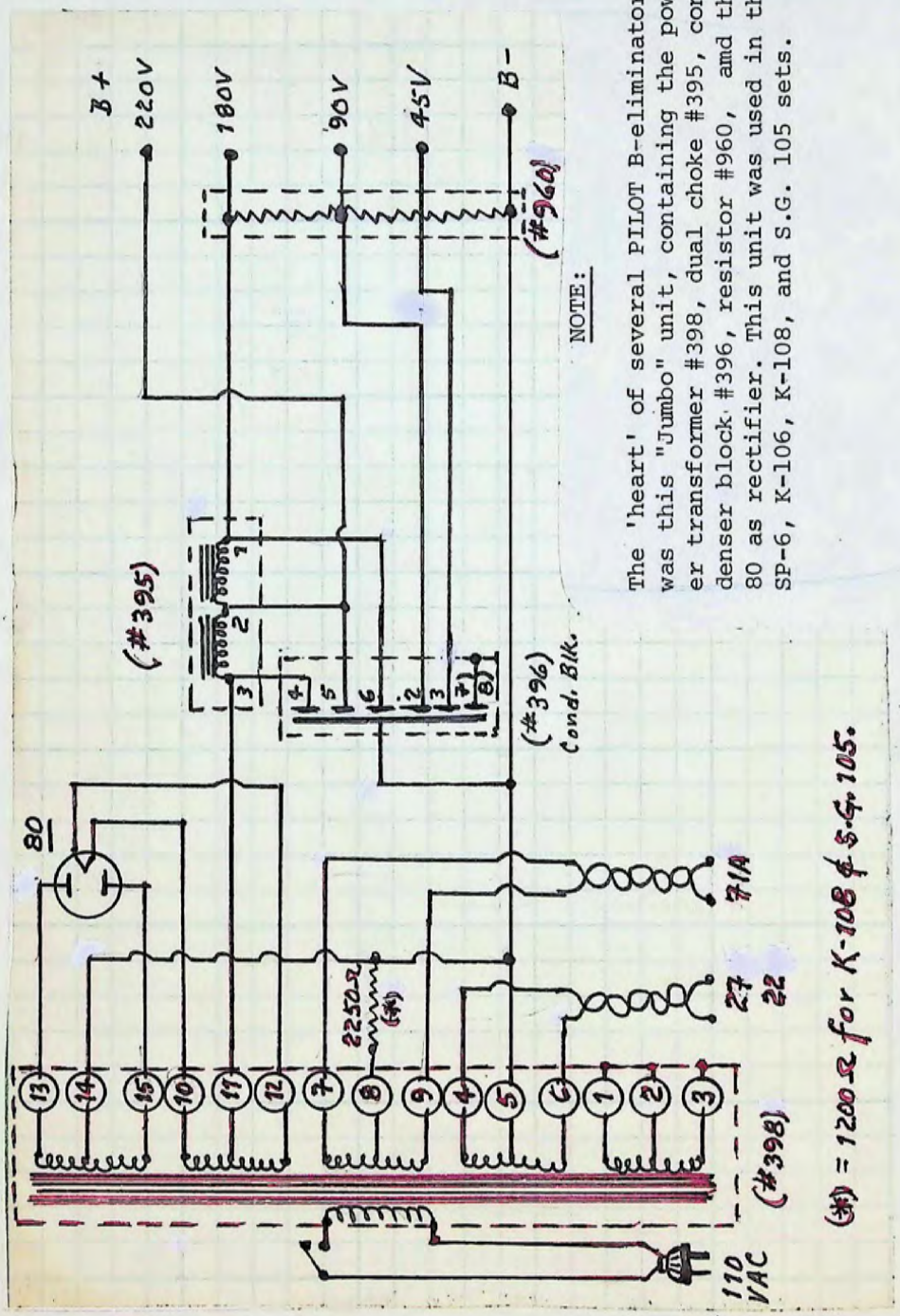
2. IF transformers were tuned to 115 KC., having a total of four circuits.

3. The 2nd DET operated as a self-biasing power detector, and was resistance-coupled to the pentode output stage.

4. Plate voltage, except for the OSC, was supplied from the mains. OSC plate voltage was supplied from a 90V tap.

5. Volume was controlled by varying the grid-bias of the 35 tube.

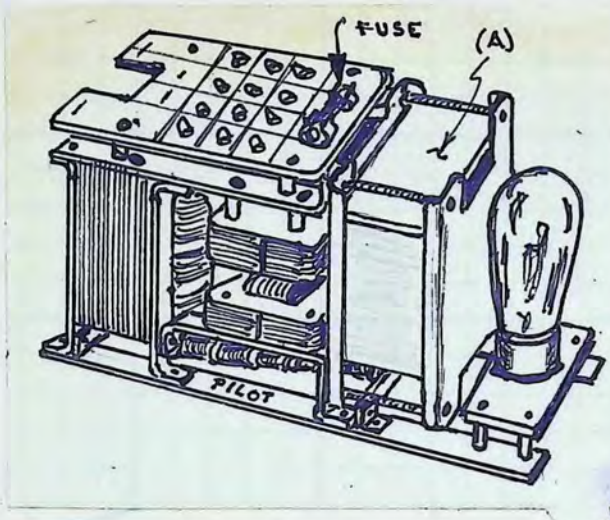
PILOT "UNIVERSAL JUMBO" B-ELIMINATOR, 1928

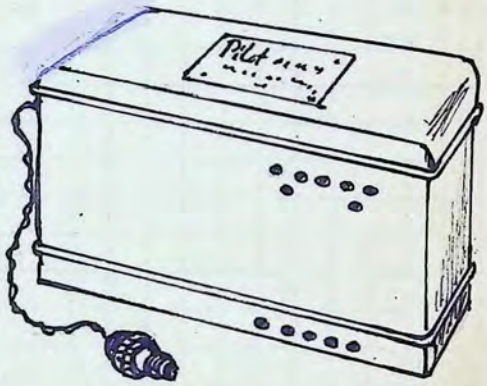


NOTE:

The 'heart' of several PILOT B-eliminators was this "Jumbo" unit, containing the power transformer #398, dual choke #395, condenser block #396, resistor #960, amd the 80 as rectifier. This unit was used in the SP-6, K-106, K-108, and S.G. 105 sets.

PILOT K-111 B-ELIMINATOR, 1928





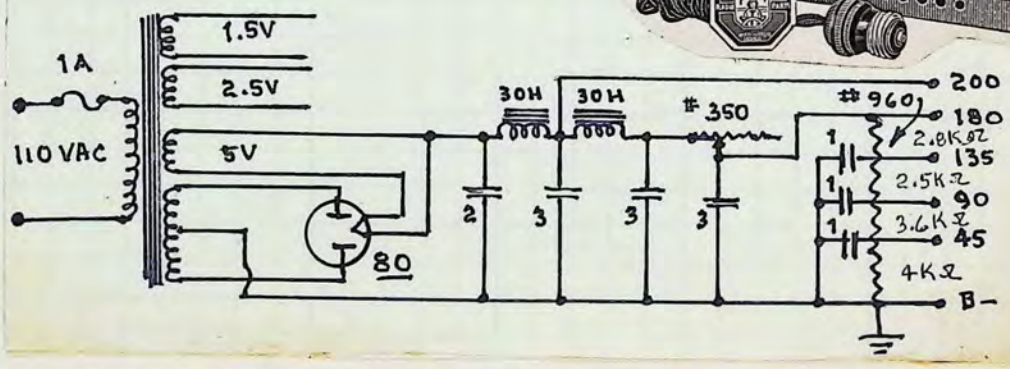
PILOT K-111 POWER SUPPLY:

AC-DC, 60 mA max., 220VDC.

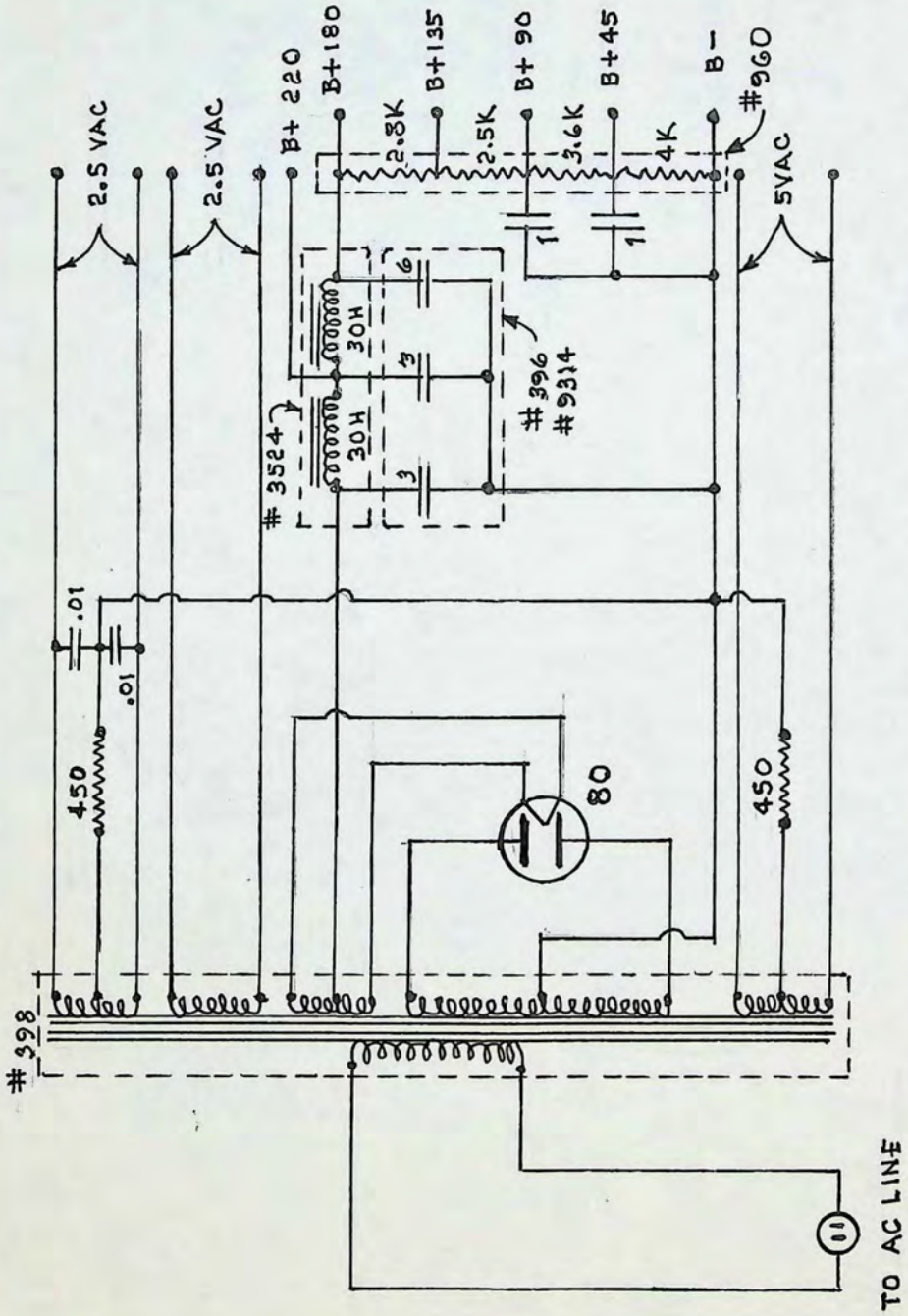
PILOT K-112 B-eliminator was of the same configuration, the difference being only that the K-112 supplied 200V at 90 mA.

Overall Dim. = 9½" x 6.875" x 3½".

Moulded Bakelite terminal plate on top of unit designated "A" was a diagram of terminal connexions.

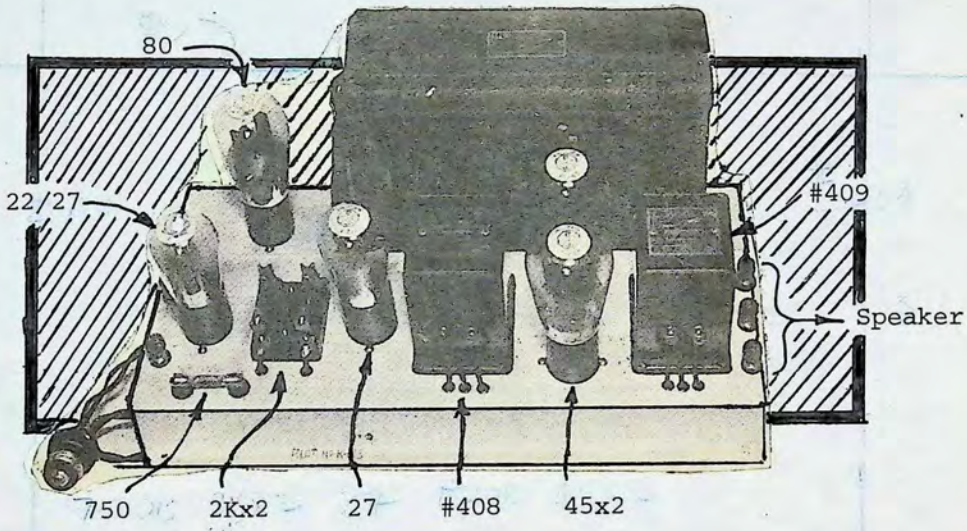


PILOT "JUMBO A-B-C" POWER PACK, 1928



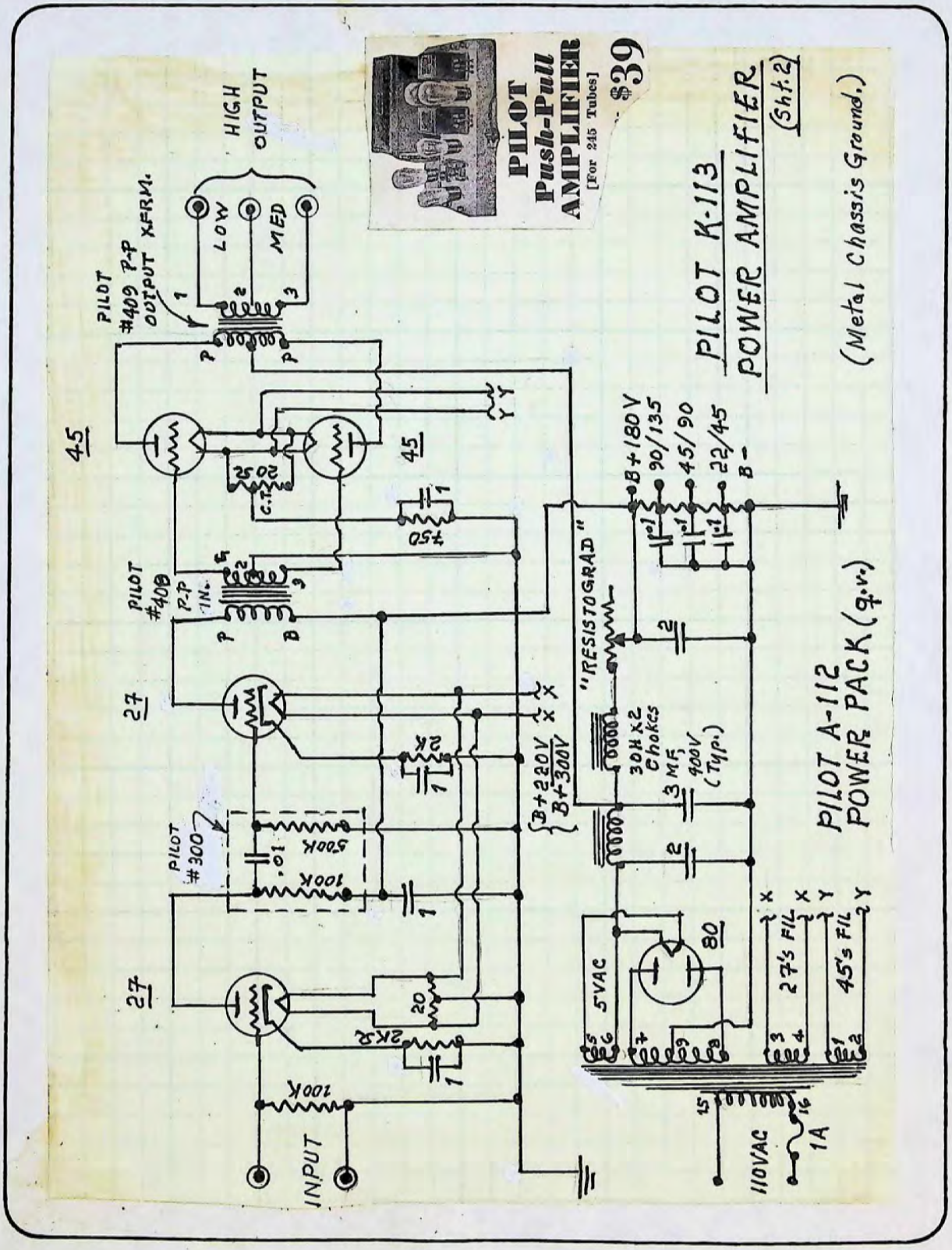
NOTE: BIAS RESISTORS DETERMINED BY TUBES USED.
CONDENSER BLOCK, POWER CHOKES, & VOLTAGE
DIVIDER WERE INTERCHANGEABLE BETWEEN
MOST EARLY "PILOT" POWER SUPPLIES.

PILOT K-113 POWER AMPLIFIER, 1929 - Sht. 1

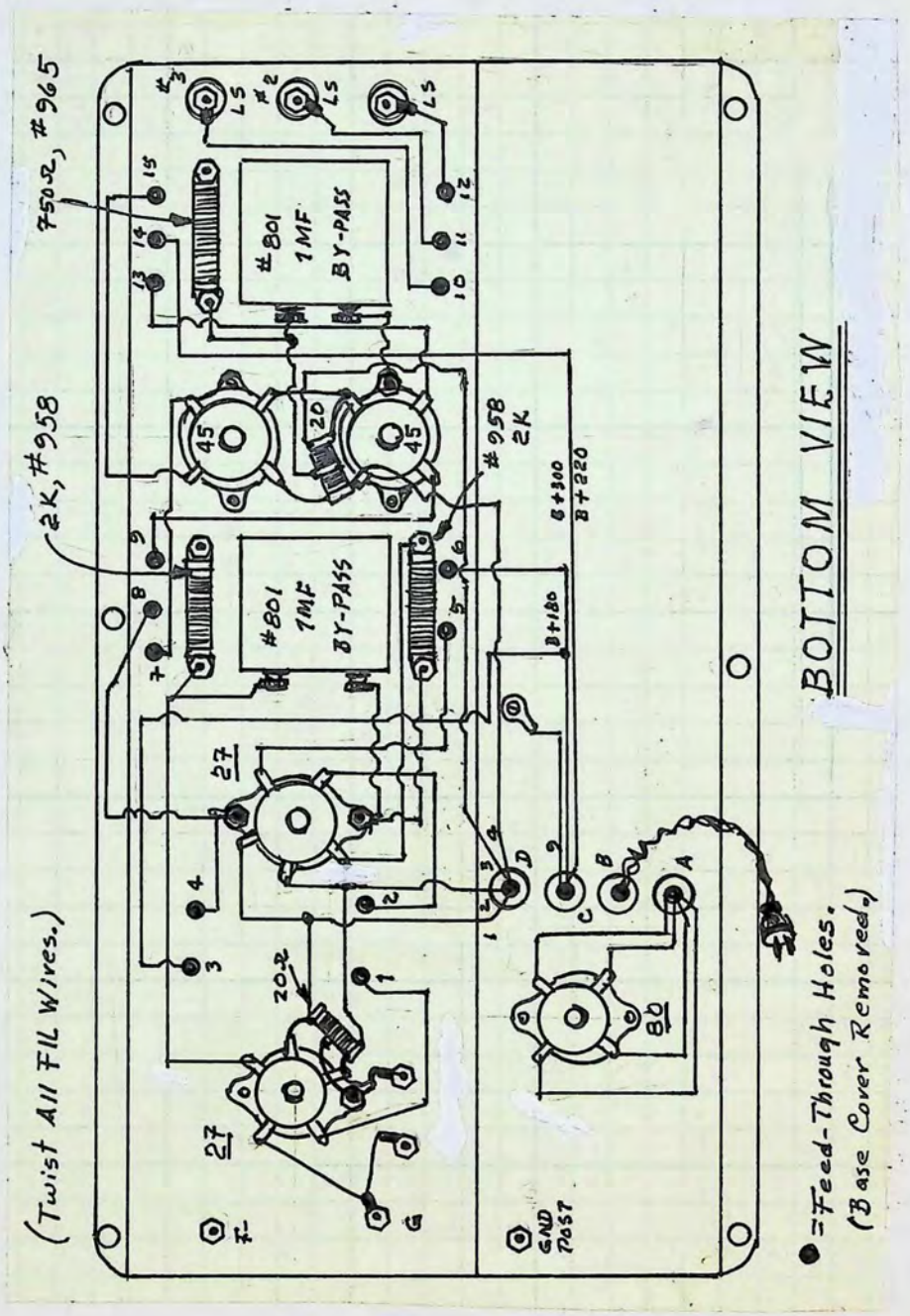


There were two versions of the K-113 Power Amplifier, both being offered during 1929. The circuitry was essentially the same, the chief differences or modification being that the first version used a 22 screen-grid tube as the first input, which was changed to a 27 in the second version; and a Pilot No. 801 0.1 MFD by-pass was added to the second version.

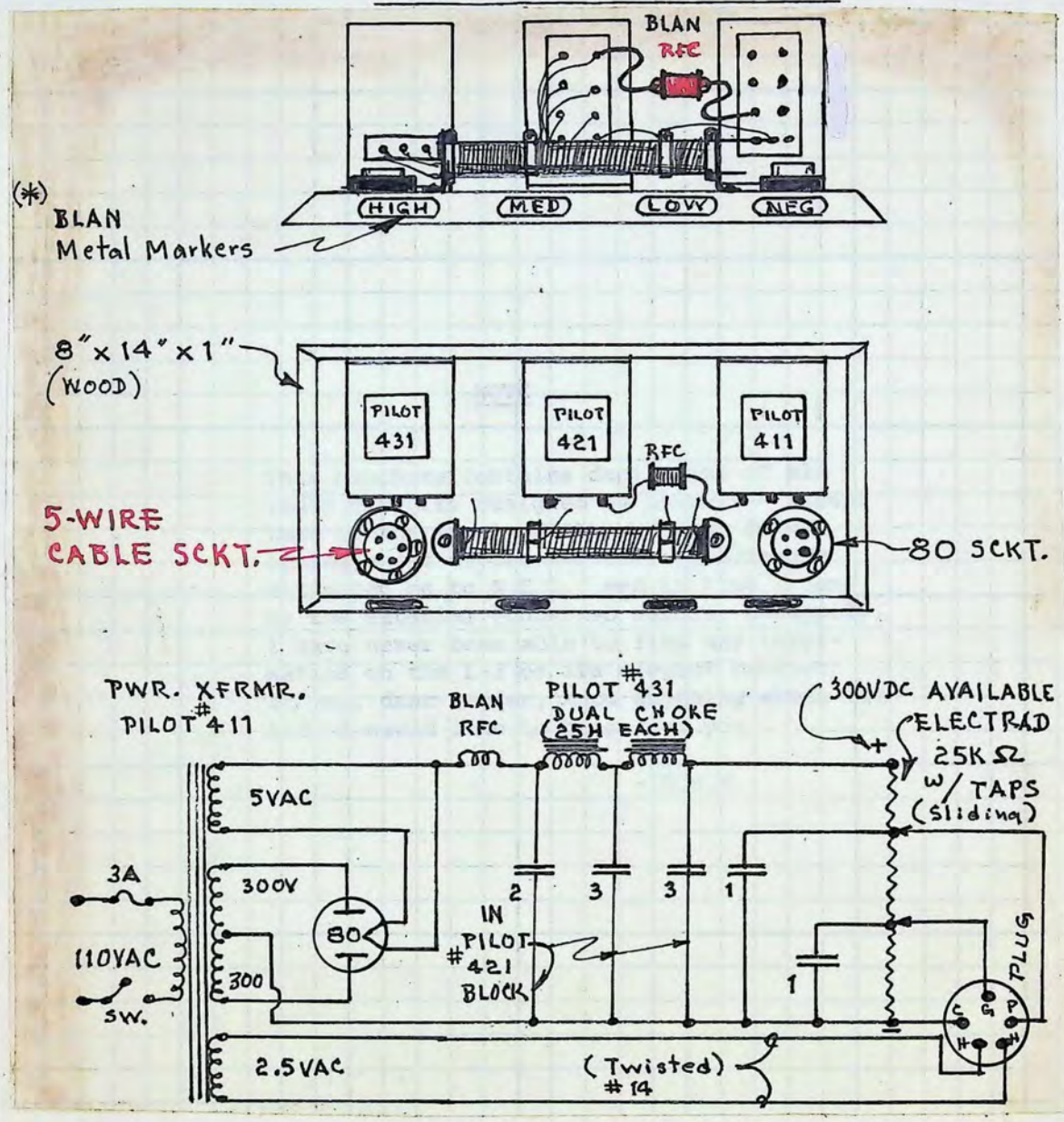
The following sketches should give you a good idea of what was involved with both versions of the K-113, and if you have the first version, it is a simple matter to modify it to match the second version, which was slightly smoother in operation.


PILOT
Push-Pull
AMPLIFIER
[For 245 Tubes]
$39
PILOT K-113
POWER AMPLIFIER
(Sht. 2)
(Metal Chassis Ground.)
PILOT A-112
POWER PACK (q.v.)
HIGH OUTPUT
LOW
MED
PILOT #409 P-P OUTPUT XFRM.
PILOT #408 P-P IN.
PILOT #300
45
27
80
"RESISTOGRAD"
30H X2 Chokes
3 MF 400V (Typ.)
B+220V
B+300V
B+180V
90/135
45/90
22/45
B-
5VAC
27's FIL
45's FIL
110VAC
1A
INPUT
100K
500K
2K
750
20Ω
C.T.

PILOT K-113 POWER AMPLIFIER, 1929; Sht. 3



PILOT "SIMPLE" POWER SUPPLY, 1928



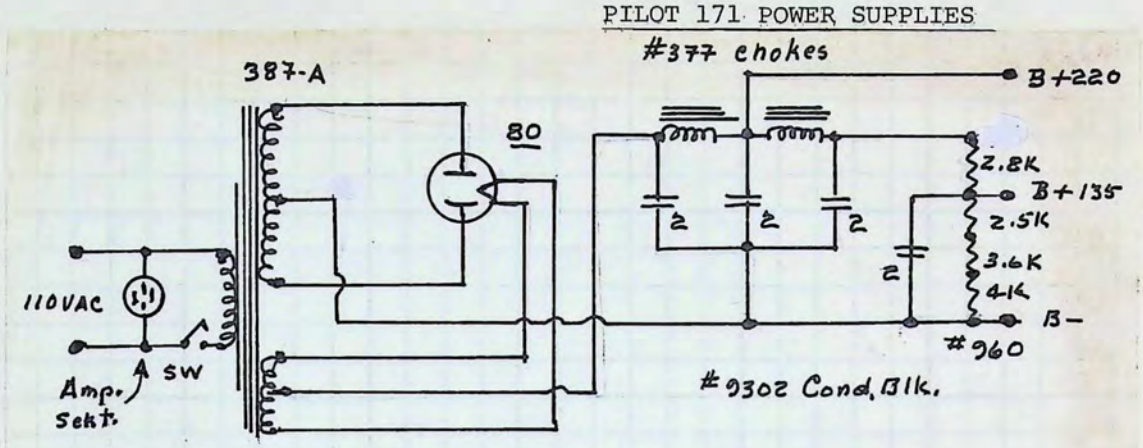
All connecting wires = #18, except as noted.

(*) = Blan-the-Radio-Man was a NYC radio retailer during the late Twenties.

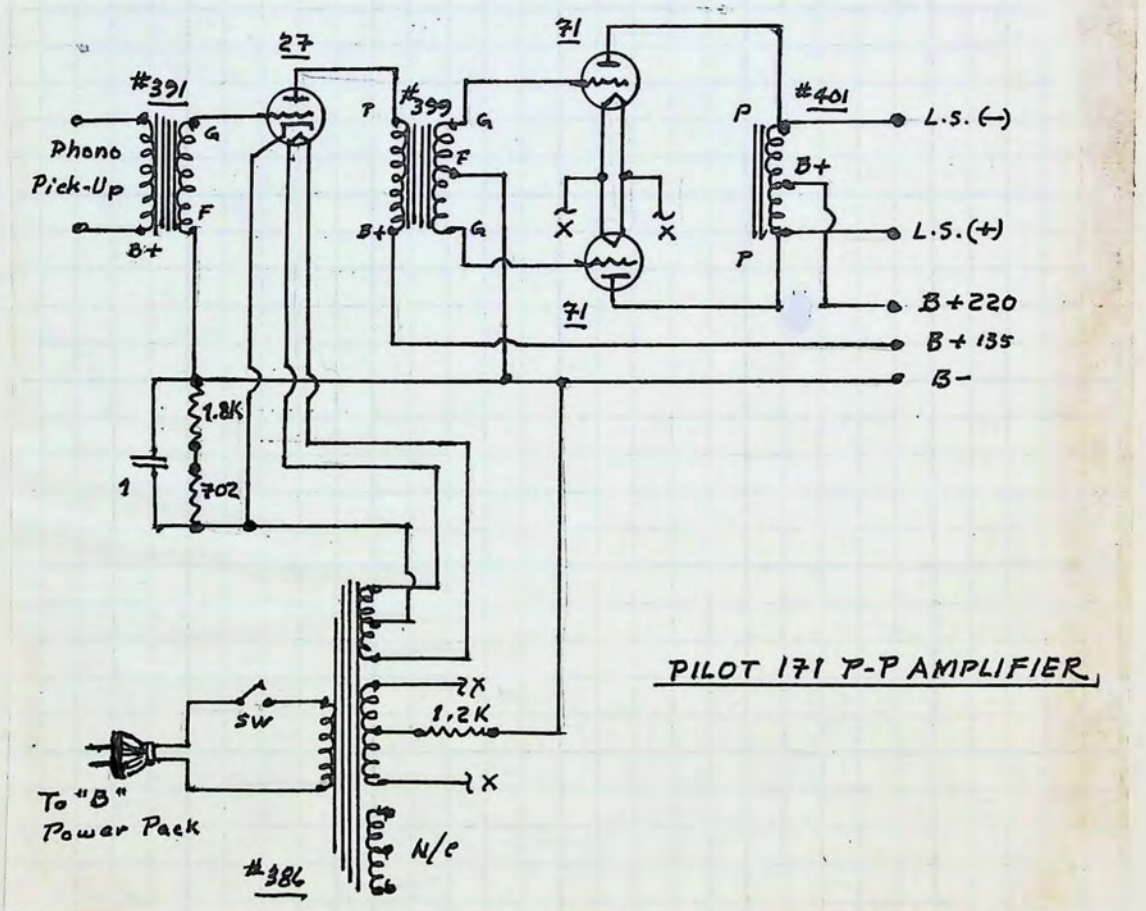
If multiple plate voltages are needed, add taps to the Voltage Divider, and use a 6-prong plug.

(OSWRM)

PILOT 171 POWER SUPPLIES

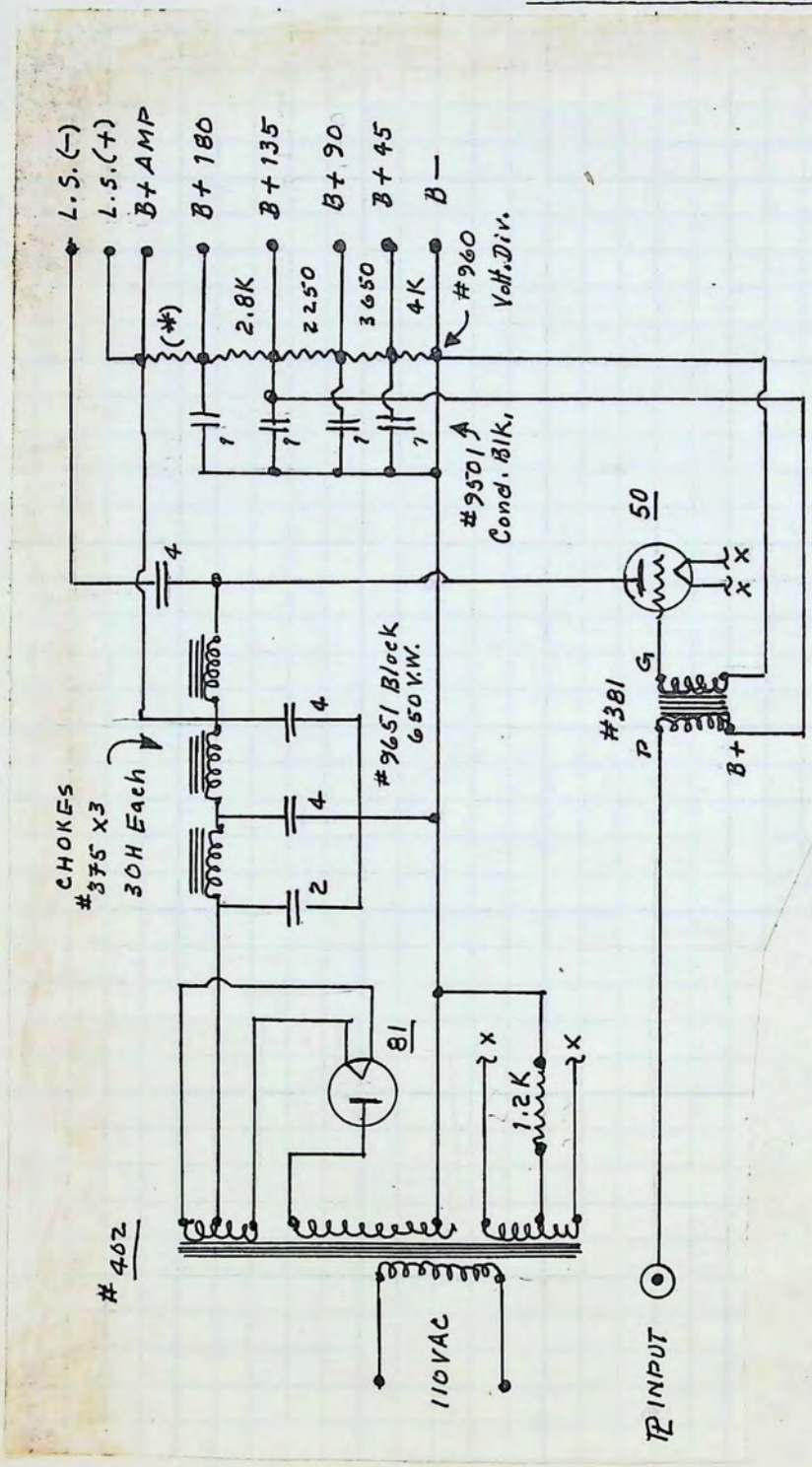


PILOT 171 POWER PACK

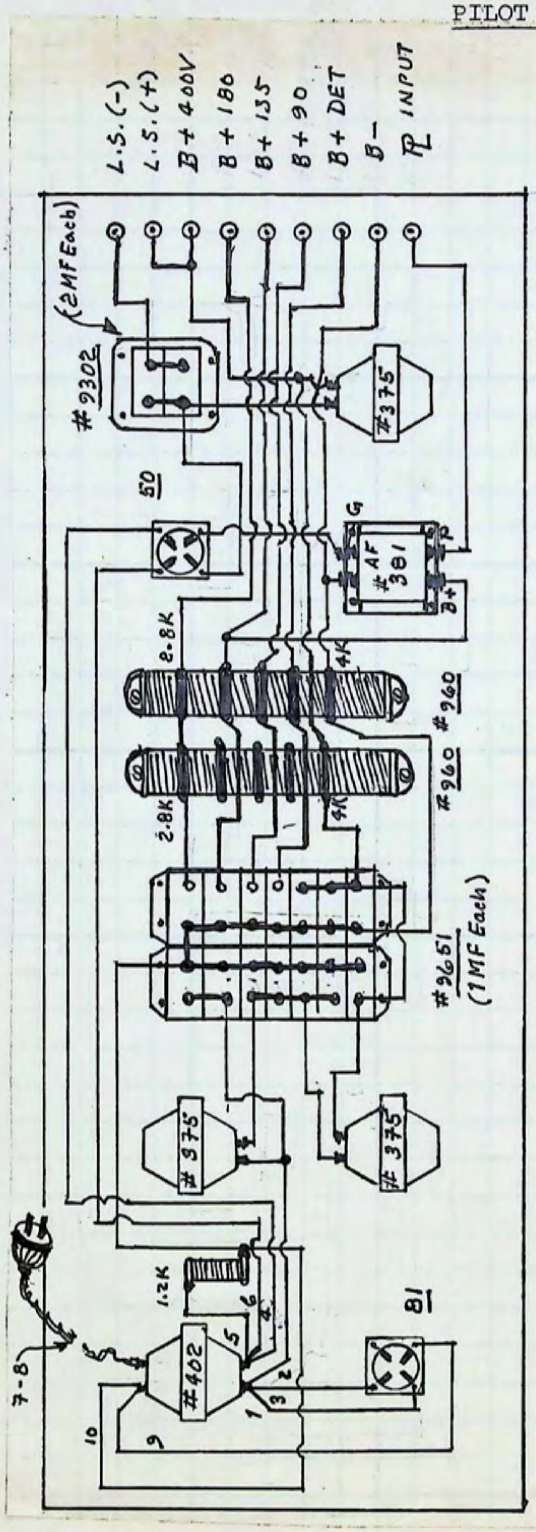


PILOT 171 P-P AMPLIFIER

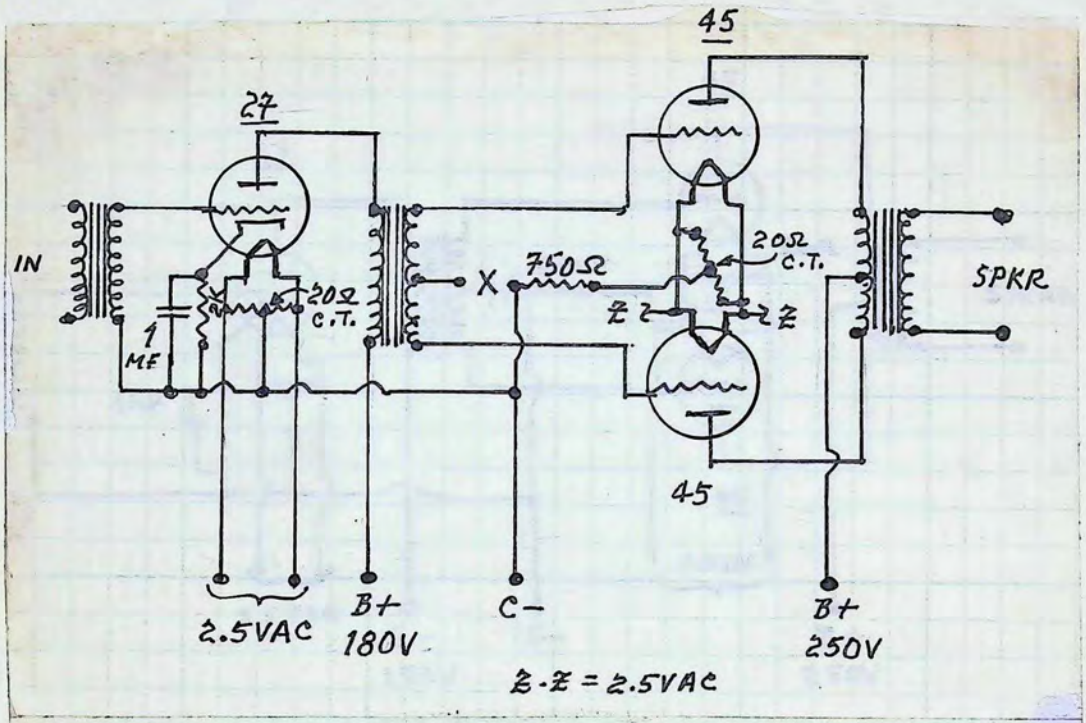
PILOT 250 POWER AMPLIFIER; Sht. 1



PILOT 250 POWER AMPLIFIER; Sht. 2

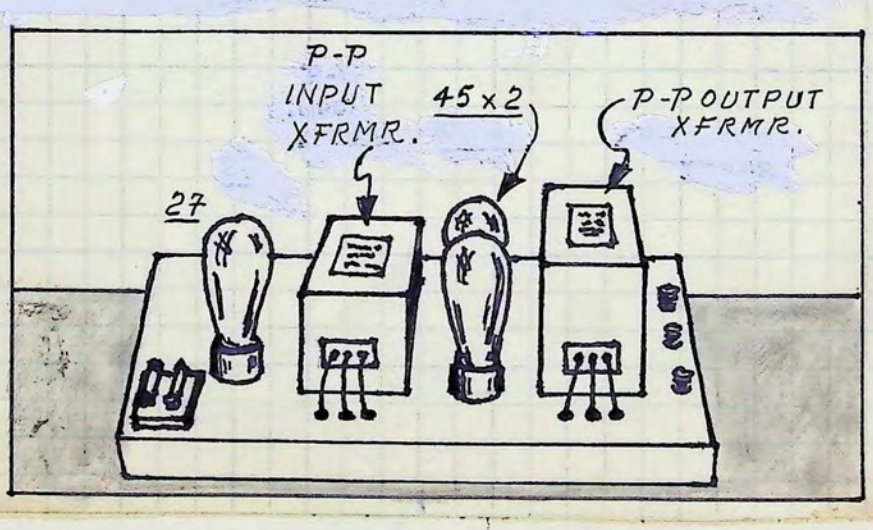


PILOT PUSH-PULL AF AMPLIFIER, 1929



"X" = If oscillation occurs, insert a 10K - 50K resistor at "X". But do NOT by-pass!

Test for oscillation with low ohms meter in C- leg at "X"; there should be no deflexion. If set is oscillating, a few mA will deflect the meter needle. If so, add a resistor, as above.



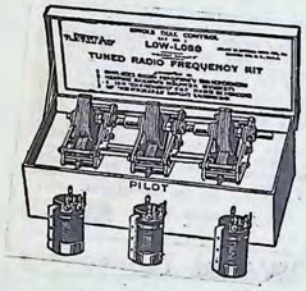
NOTES

REPRESENTATIVE PILOT PARTS & ACCESSORIES

By 1930 PILOT was advertising that they were the largest manufacturer of radio parts in the world. The claim was never challenged, and the following cuts could suggest why the claim was almost an understatement. In truth, in the years after Goldberg took over as president, PILOT's parts were among the very best available.

PILOT's earliest offerings are shown on this page.

Pilot One-Dial Tuned R. F. Essential Kit

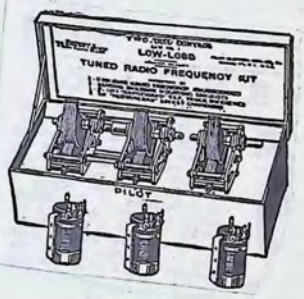


$12.00

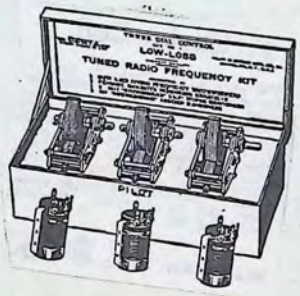
Pilot Radio Frequency Essential Kit

$7.20 - This kit featured Freshman RF Coils.

Pilot Two-Dial Tuned R. F. Essential Kit



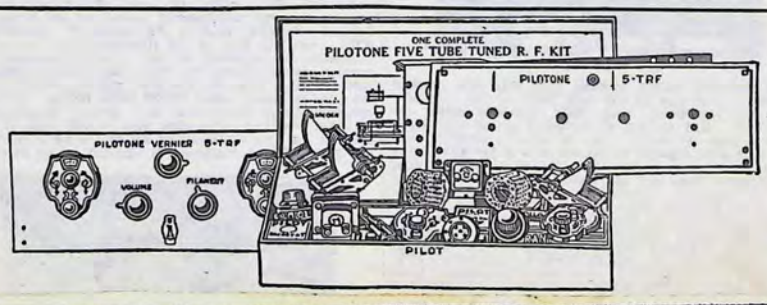
$10.



Pilot De Luxe 3-Dial Tuned R. F. Essential Kit

$ 8.50

"PILOTONE" 2-Dial 5-Tube Tuned Radio Frequency Receiver

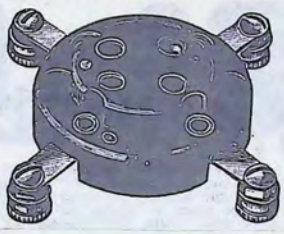


$34.30

REPRESENTATIVE PILOT PARTS & ACCESSORIES

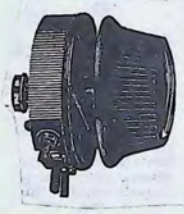
700 Ohm Pilot Adjustograd

Pilot Universal Socket

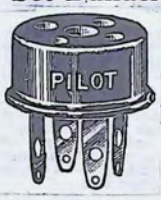


Pilot Bakelite Grid Condenser

Pilot Bakelite Potentiometer



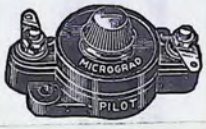
Pilot Compact, Sub-Panel Socket, Set Builders' Type



Pilot Rheostat

Pilot Toggle Switch

Pilot Micrograd Miniature Variable Condenser



Pilot Resistograd

Pilot Gang Condenser Couplings

Pilot Resistoblock

REPRESENTATIVE PILOT PARTS & ACCESSORIES

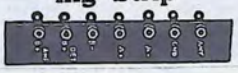
Pilot Capacigrad Centraline Precision Condensers

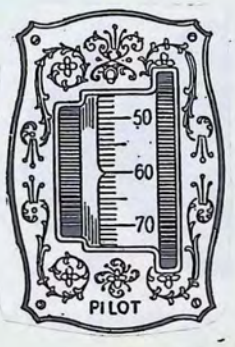
Pilot Space-Wound R. F. Transformer, Precision Type

Pilot Plug-In, Space-Wound R. F. Transformer

Pilot Double Vernier Drum Control Dial

Pilot Snap Terminal Connecting Strip

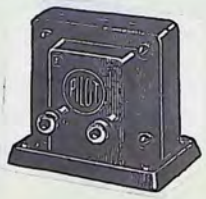




Pilot Vernier Drum Dials

Pilot Kilograd Vernier Dial

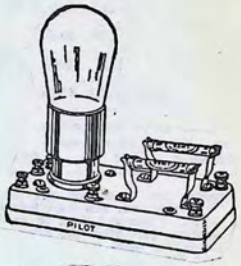
Pilot Bakelite Case Audio Frequency Transformers



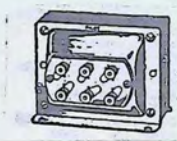
Pilot All Bakelite Vernier

REPRESENTATIVE PILOT PARTS & ACCESSORIES

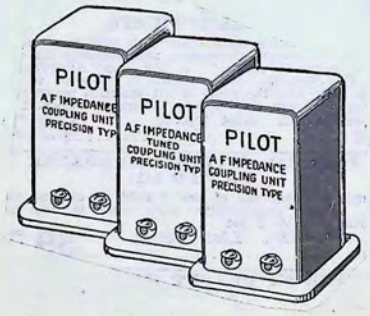
Pilot Impedance Amplifier



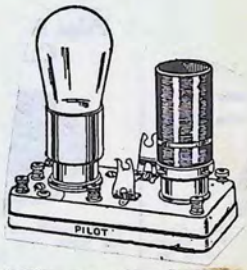
Pilot "Redi-Blox" Resistance Amplifying Unit, Precision Type



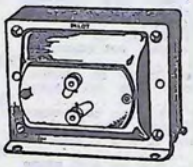
Pilot A B C Eliminator Transformer



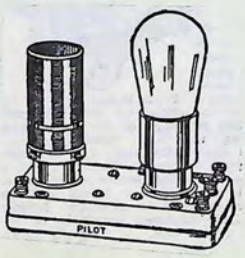
Pilot A. F. Output Impedance, Precision Type



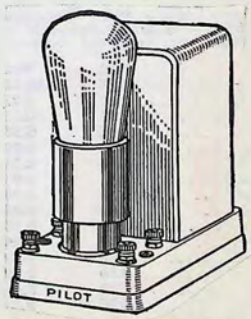
Pilot "Redi-Blox" Detector Unit, Precision Type



Pilot A B C Eliminator Choke, Precision Type



Pilot R. F. "Redi-Blox" Unit



Pilot "Redi-Blox" Transformer Amplifying Unit, Precison Type

PILOT COMPONENTS

MIDGET DUAL
JACK (,45)

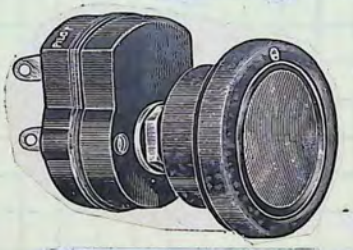
PILOT
VERNIER
DRUM DIAL
(3.75)

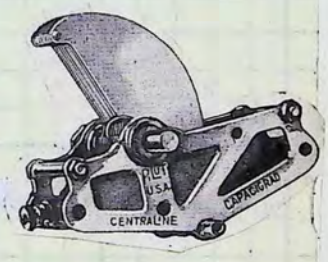
No. 46

SNAP-SWITCH

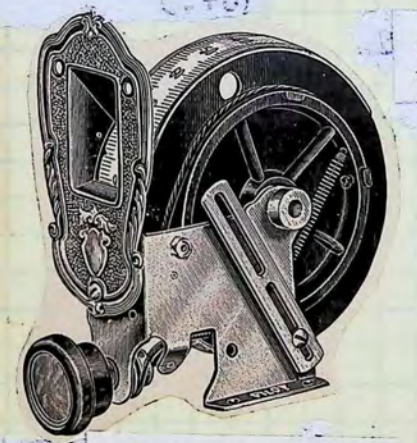
AF XFRMR. #412 (7.00)
POWER CHOKE #414 (3.75)
Impedance CPLR. #415 (5.00)
(All of Same Configuration.)

PANEL LIGHT
(.70)





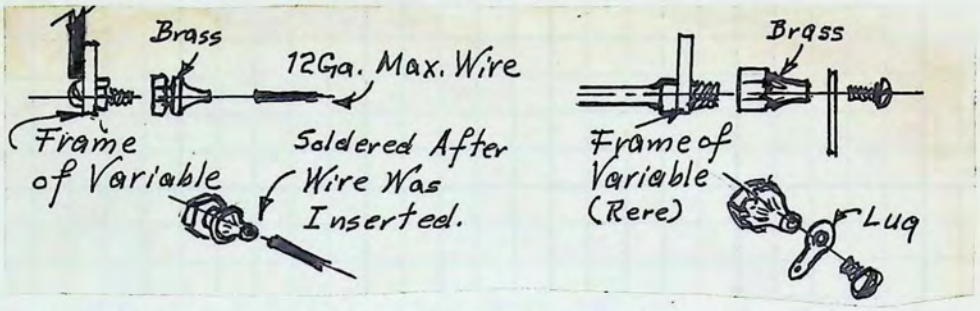
SNAP-SWITCH
#45 (1.15)



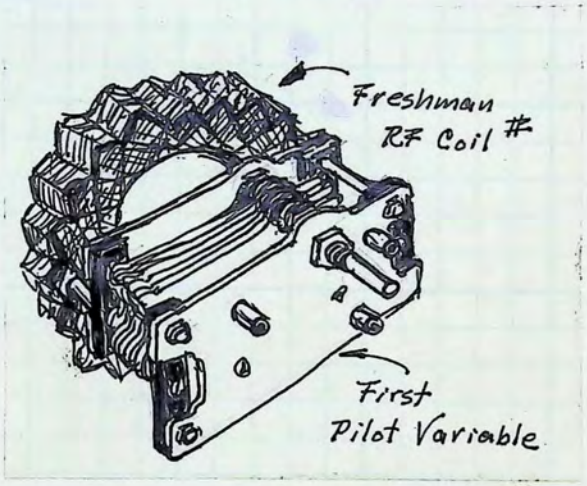
FIL XFRMR. #407
For 2.5V Tubes (4.50)

VERNIER DRUM DIAL
#1285 (5.50)

PILOT COMPONENTS THAT FAILED



CONNECTORS FOR VARIABLE CONDENSERS THAT PROVED TO BE UNECONOMICAL IN PRODUCTION AND WERE QUICKLY ABANDONED.



A KITTED ITEM, ORIGINALLY CONSISTING OF THREE COILS AND THREE VARIABLES, WHICH NEVER GOT OFF THE GROUND.

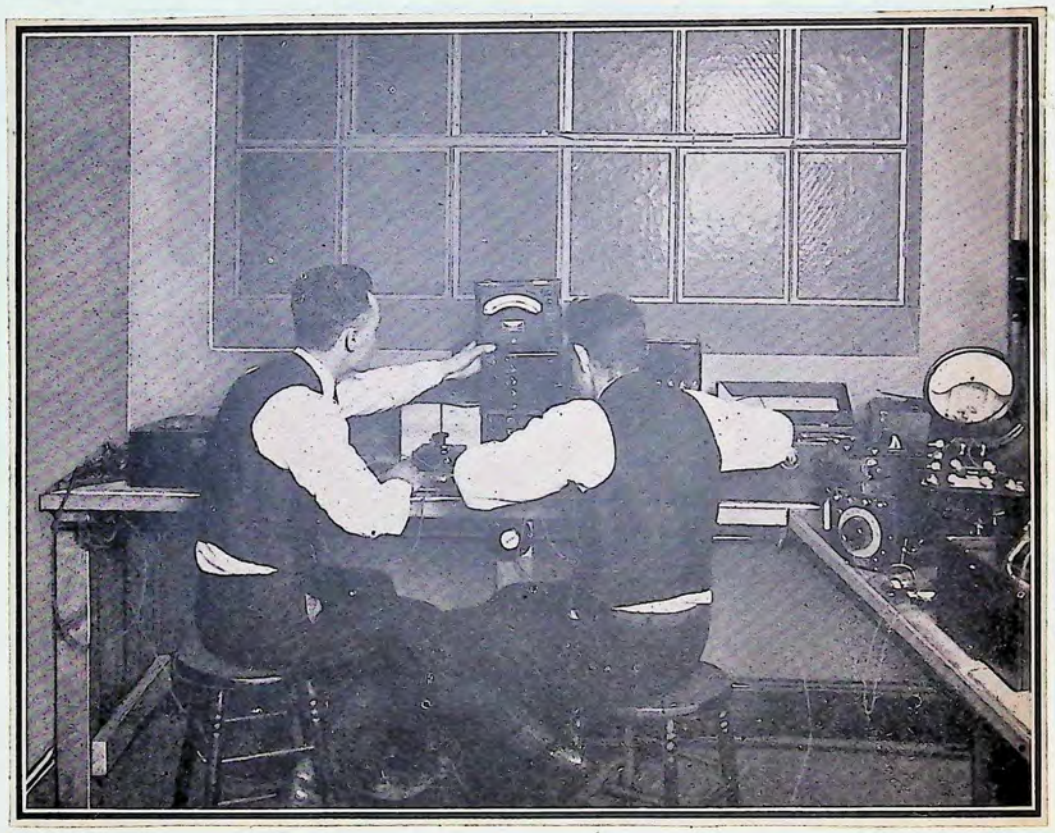
First Commercial Televisor

The above cut shows Dr. Jenkins with his first production model of his television set, exhibited at the DeForest Radio Booth, Chicago Radio Fair, 1929. I have included it here simply because it shows PILOT's "Super Wasp" receiver, a SW receiver being mandatory for pulling in "radio pictures" of the period.

The set shown had the conventional scanning or spinning disc of the period, with a synchronous motor behind the upper panel. There were seperate controls, added, to control RF frequency and volume, which had to be nicely balanced to see and hear anything. This pioneering labour of Jenkins, and Baird, unfortunately, led to the plethora of "idiot tubes" of today. We easily admit that the dream has become a nightmare.

* * *
* *

Merle Duston



Merle Duston of Detroit merits a passing mention where PILOT's story is concerned, simply because he was the man Goldberg turned to when PILOT moved from manufacturing electrical goods to the design and manufacture of radios.

Duston, shown at the left in the illustration above, a radio engineer who also received his experience during The Big War as did so many of our early radio pioneers, set-up the trade school known as Federal Radio, and it was quite successful. In the course of his labours he published through Whitman Publishing Company, an impressive collection of 7" x 13" technical booklets bearing the title "Radio Construction", in which he detailed numerous circuits

he had designed for his students at Federal Radio Trade School.

These circuits were straight-forward, clean designs that eschewed the gimmickness favoured by many at the time. When Goldberg became president of PILOT, he turned to Duston and asked him to come up with a simple receiver that could be kitted and that could be for the average home-constructor a thing of pride and joy. The five sets which subsequently bore the name "Pilotone" were the result. Introduced as kits sold by 5x10-cent stores, they launched PILOT into the radio business. The first radio described at the beginning of this volume is the Duston designed "Pilotone Universal", the most successful of all the circuits, and which was later "electrified", as also detailed in this volume.

Duston also designed a couple of tubes, the SO-4 is remembered by some old timers as an effective detector and amplifier, but it got lost in the quagmire of litigations, mostly initiated by the Octupus, and died aborning. He also designed effective battery-eliminators, and later PILOT power units reflected his concepts.

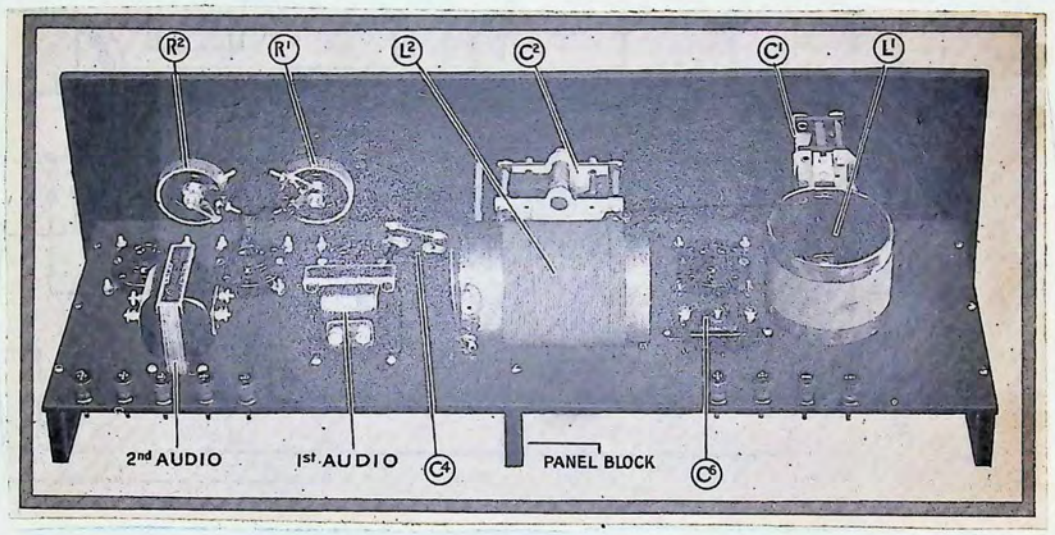
The following illustrations and circuits are indicative of the drive and the talent of Merle Duston. They are clean designs and if you have toyed with the notion of constructing from scratch some of the early circuits, any circuit by Duston would be an ideal place to start. You will note that in the beginning very few PILOT, as such, components were called for, simply because PILOT was not a manufacturer of strictly radio parts. Later versions of the "Pilotone Universal", however, did call for PILOT parts.

As was the fashion, comparable parts could always be in place of those specified, and it is interesting that until the marque of PILOT took hold among the fraternity, PILOT used components of Freshman and Lacault, with a penchent for "Apollo" AF transformers and Hazeltine's "Neutraformers".

* * *
* *
*

(Sht.1)

Browning-Drake Set



GENERAL PARTS LIST

C1 = 23-plate Variable

C2 = 17-plate Variable

L1 & L2 = Browning-Drake Coils

R1 & R2 = 20-ohm Rheostats

C6 = Midget Balancing Condenser

C4 & R5 = Grid-Leak & Condenser

C3 = .00025 MFD Condenser

C5 = .001 MFD By-Pass Condenser

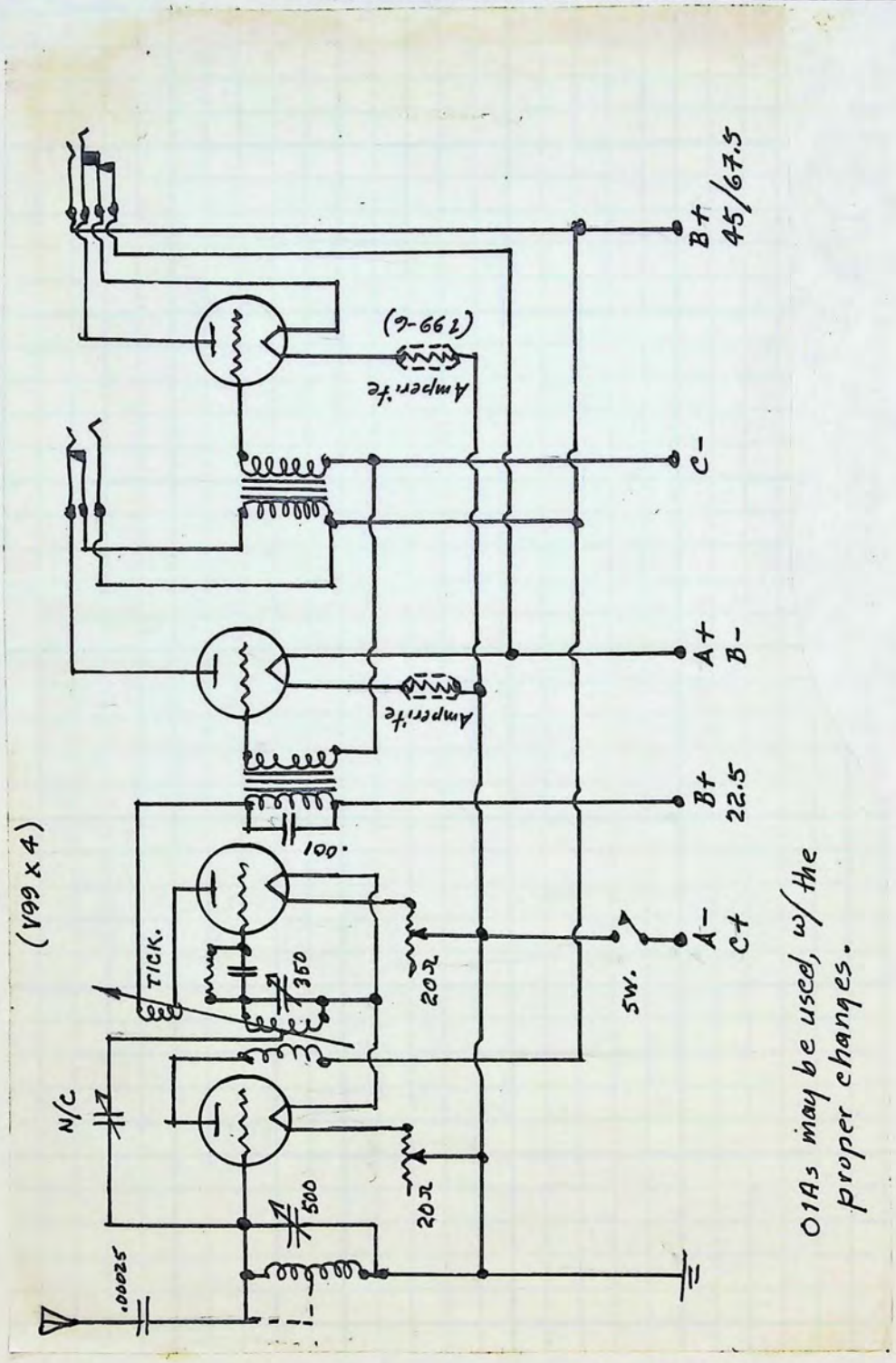
Panel = 7" x 24" x .189"

Subpanel = 7" x 24" x ½"

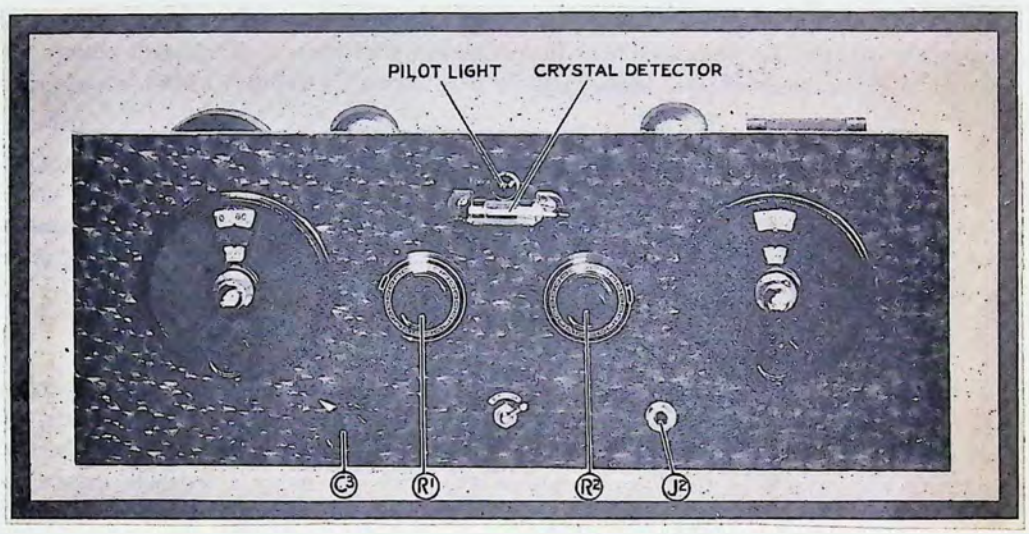
9 Binding Posts

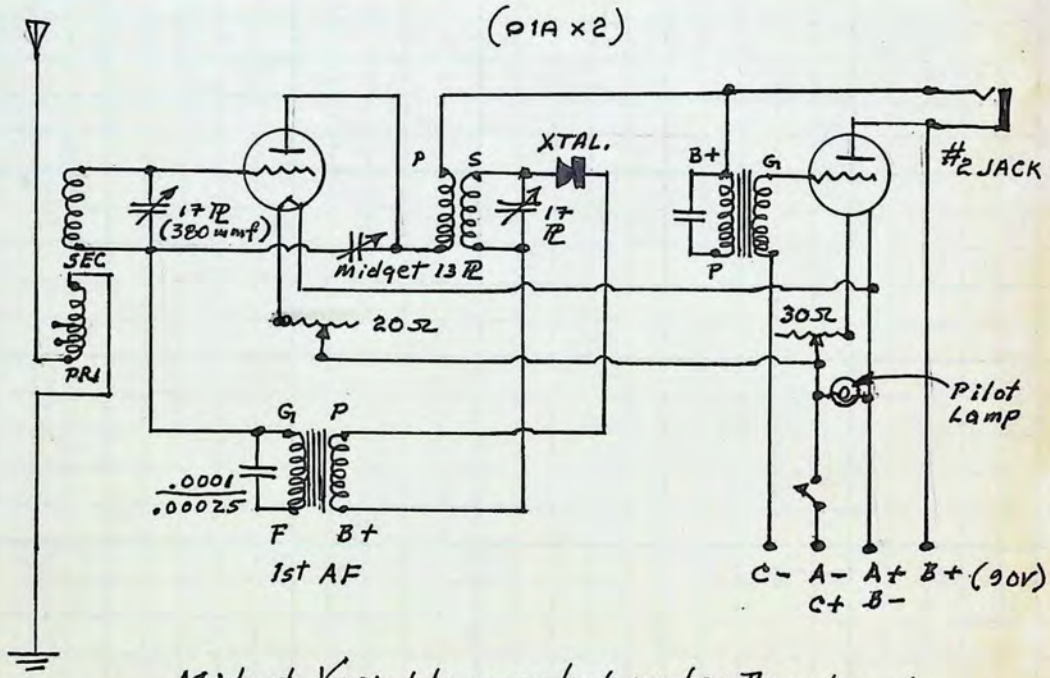
3 Subpanel Brackets

MERLE DUSTIN's BROWNING-DRAKE, 1926; Sht. 2



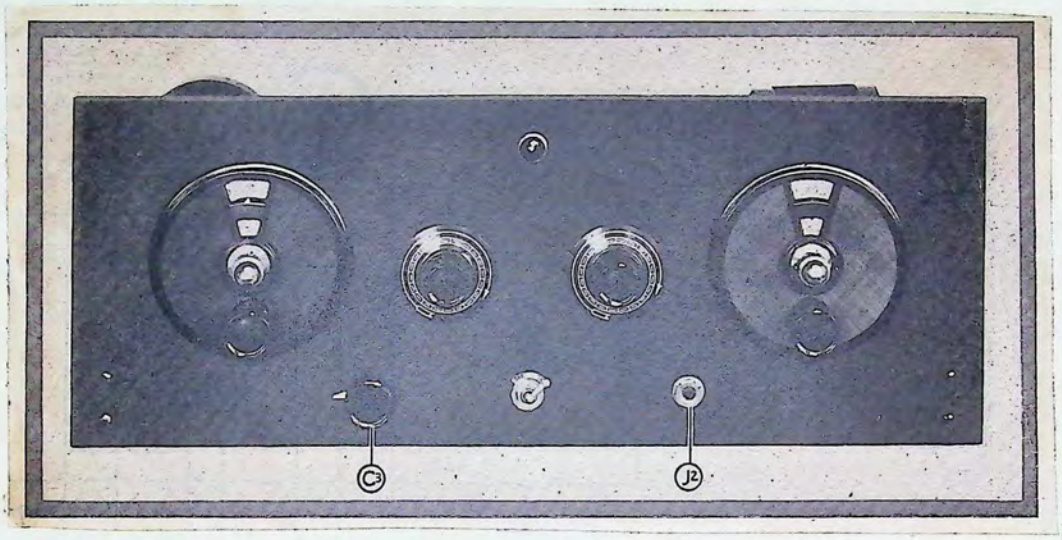
Universal Two Bulb Reflex

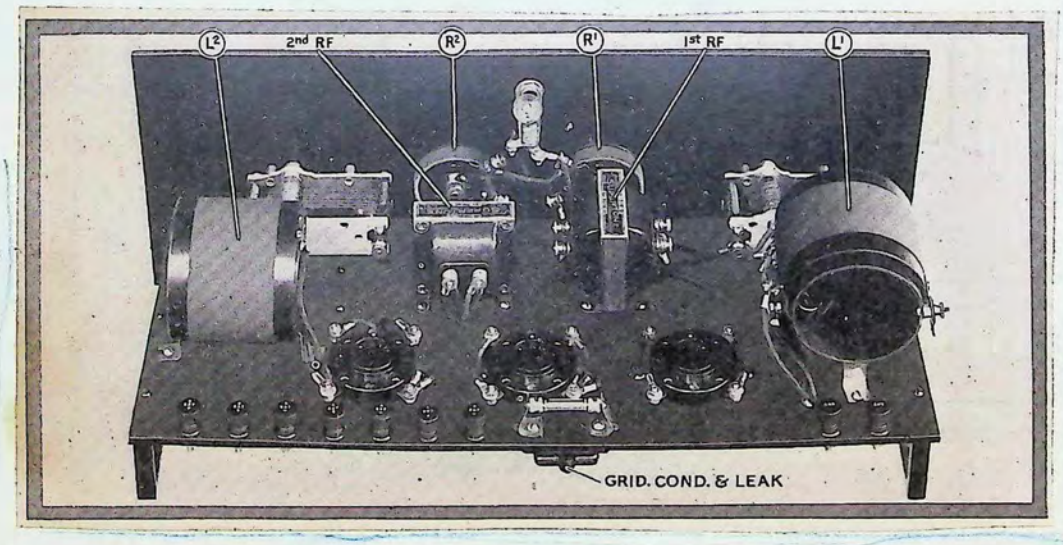




Midget Variable mounted under Baseboard.
Fil switch mounted under Pilot lamp.
"APOLLO" AF xfrmrs. used originally.

Universal Three Bulb Reflex





This circuit is identical to that of the 2-tube reflex, with simply one more tube added between the AF transformers, and connected in the usual way. You will note that the panel layout follows that used for the "Pilot-one", as with all other Duston sets.

PILOT *presents*—
Two Radio Improvements

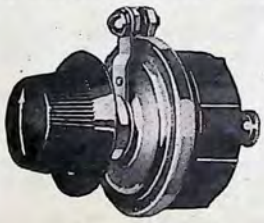
"A" Battery operates the tiny Marda lamp. The cost of "juice" consumed in 10 years wouldn't buy you a good cigar! Pilot-Lite Dials *modernize* old sets! On new ones they are standard equipment, of course!

Give Your Set Eyes,
And You Save Your Own!

PILOT-LITE
VERNIER DIAL ILLUMINATED

Lower-priced because made *complete* in our own huge factory, wiping out all in-between-profits! Equip with Pilot-Lite Dials. Increased Visibility. Your eyes will be grateful. Tuning sharper. Friction drive eliminates "backlash". PILOT-LITE ILLUMINATED VERNIER DIAL, including drilling Template, Bulb, and Bezel $1.50

Pilot simplified drilling Template makes installation simple, quick, easy! Handsome window-bezel covers rough edges left by drill. Pilot-Lites freshen up the face of any receiver!



PILOT-RESISTOGRAD

What is it? A non-inductive variable Resistor.
How used? 1. To control regeneration, use as a variable grid-leak.
2. To regulate output voltage in B Battery eliminators.
Construction? A special active compound is hermetically sealed in Bakelite case moulded under enormous pressure. Assures perfect insulation and cannot deteriorate or fluctuate due to entry of moisture or dirt.
Features? Range from practically zero to 30-million ohms (30 megohms). Allows perfect gradation. Always stable and under positive control. Made with characteristic Pilot precision, entirely in the big Pilot plant, cutting the price in half! Easily mounted. $1.25

ENGLAND
R. A. Rothermel, Ltd.
24 & 26 Maddox Street
Regent St., London, W1.
AUSTRALIA
United Distributors, Ltd.
72 Clarence St., Sydney
BRAZIL
Samuel Meyer
41 Rua Buenos Ayres, Rio Janeiro
ARGENTINE
Samuel Meyer
367 Bartolome Mitre, Buenos Aires

PILOT
ELECTRIC M'F'G. CO., INC.
323 BERRY ST., BROOKLYN, N.Y.

Get parts shown here at S. S. Kresge Radio Depts., or through local dealer.

Choose which of these 5 circuits you Will Build!
You can build 'em all—and many others, too—with the amazing Pilotone Universal Kit. All parts interchangeable. No soldering. Perfectly simple to build. Simply perfect to hear!
FIVE TUBE T.R.F.
3 TUBE 3 CIRCUIT
3 TUBE REFLEX
2 TUBE REFLEX
$17.90
SHORT WAVE
PILOTONE
UNIVERSAL KIT
Contains all necessary parts for above five circuits (and many others). Tuning Coils and Condensers are not included as inductance, etc. varies for each circuit.
1 Drilled and Lithographed Front Panel (7x18)
1 Drilled Sub-Panel (7x17)
1 Pilot Light
2 2" Bakelite Sub-panel Brackets)
2 700-ohm Resistances (Dampers
1 .006 By-Pass Condenser
1 .002 By-Pass Condenser
2 Vernier Dials
5 Universal Sockets
1 Filament Switch
1 Pkg. Washers—1 Pkg. Nuts —2 Pkgs. Asst. Screws
38 Flexible Leads
1 .00025 Grid Condenser
1 Grid Leak
9 Marked Binding Posts
2 Audio Frequency Transformers
1 10-ohm Rheostat w/knob
1 20-ohm Rheostat w/knob
1 3-Point Jack—1 4-Point Jack
Get the PILOTONE KIT at S. S. Kresge Radio Depts. If none near, order through local dealer, otherwise $17.90 via post office or express money order for complete kit: also condenser and coil catalogs. Massive walnut finish cabinet $7.50 extra. Department 127.
PILOT
ELECTRIC M'FG. CO., INC.
323 BERRY ST. BROOKLYN, N.Y.
TRADE MARK
BRAZIL
Samuel Meyer
41 Rua Buenos Ayres, Rio de Janeiro
ARGENTINE
Samuel Meyer
367 Bartolome Mitre, Buenos Aires
ENGLAND
R. A. Rothermel, Ltd.
24 & 26 Maddox Street Regent St., London, W1.
AUSTRALIA
United Distributors, Ltd.
72 Clarence St., Sydney

PILOT SUPER-WASP
SHORT WAVE + BROADCAST BAND
UNITED STATES
NEAR EAST
EUROPE
FAR EAST
SOUTH AMERICA
PILOT
SUPER WASP
The World within Your Grasp
AUSTRALIA
SOUTH AFRICA
EXPLORATION
TRADE MARK REG.
TRADE MARK REG.
PILOT
DOUBLE-DUTY
SHORT-WAVE BAND
BROADCAST BAND
SUPER WASP
TUNED SCREEN GRID 16 TO 500 METERS
The Super Wasp Kit Made in World's Largest Radio Parts Plant
PILOT RADIO & TUBE CORP. BROOKLYN, N.Y. U.S.A.

Radio Manufacturers Since 1908

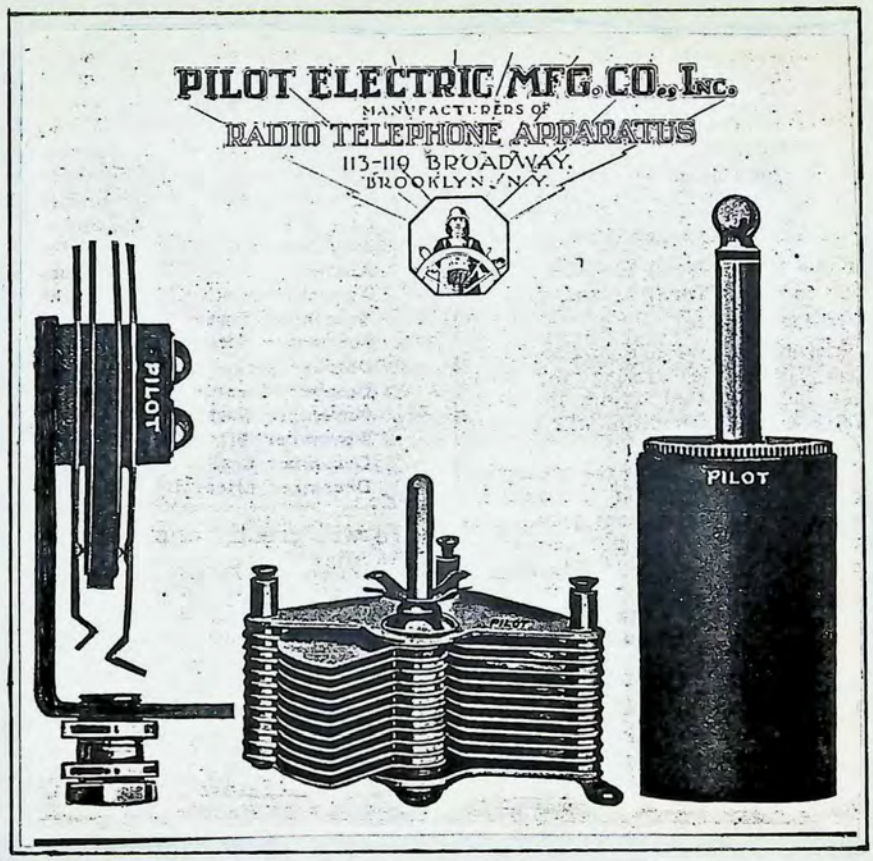
PILOT Protects Radio Parts Buyers

The name PILOT stamped on a radio part guarantees scientific engineering and precision manufacture. You can secure Pilot Precision Radio Parts only at the better type dealers.

RADIO DESIGN
Fifty cents coin or stamps brings you this Bigger and Better Construction quarterly for one entire year.

RADIO DESIGN
103A Broadway
Brooklyn, N. Y.

PILOT
ELECTRIC MFG. CO., INC.
323 Berry Street
Brooklyn, N. Y.
World's Largest Radio Parts Plant



The above advert is one of the earliest ever released by PILOT, when they were beginning to flirt with the idea of entering the Radio Game, after being suppliers to the telephone and telegraph industries. You will note that the jack & plug came directly from their earlier efforts: only the variable condenser was new, and designed exclusively for the radio trade. It was not very well-made, but PILOT quickly changed that after Goldberg took over, and moved to Brooklyn.

* * *

TRANSMITTER
G-222/TR

DESIGNED

by John Geloso, who was a ham in America, became Europe's largest independent electronics manufacturer — and is still a ham at heart.

- Full plate-modulated AM phone transmission and CW • 75 watts. 10 thru 80 meters
- Incorporates famous Geloso VFO, "Pi" tuning coil and calibrated dial • Self-contained dual power supplies • Standard American tubes
- Appearance, size matches G-209 Receiver
- Fully guaranteed

—and only **$284.50** Amateur net.

RECEIVER
G-209

- Double-conversion superhet
- 10 thru 80 meters
- Accurate stable tuning
- Easy S. S. B. selection
- Crystal filter
- Standard American tubes
- Fully guaranteed

— and only **$299.50** Amateur net.

Reference has been made to John Geloso, who was Chief Engineer for PILOT for several years - the late Twenties and early Thirties. Reference has also been made to his returning tO Italy and setting-up a ham radio manufacturing operation. The above cut shows the artful configuration of Geloso's rig, the receiver being exactly the same physically and in its colour accents, which were pearl-grey and satin black. In short, very pretty. The above cut and specifications are included here for the benefit of the current generation, as well as adding a further note on one of PILOT's best engineers. Parenthetically, I should mention that Geloso's ham equipment was inferior to Collins, National, and Hallicrafter - this was in the late Fifties.

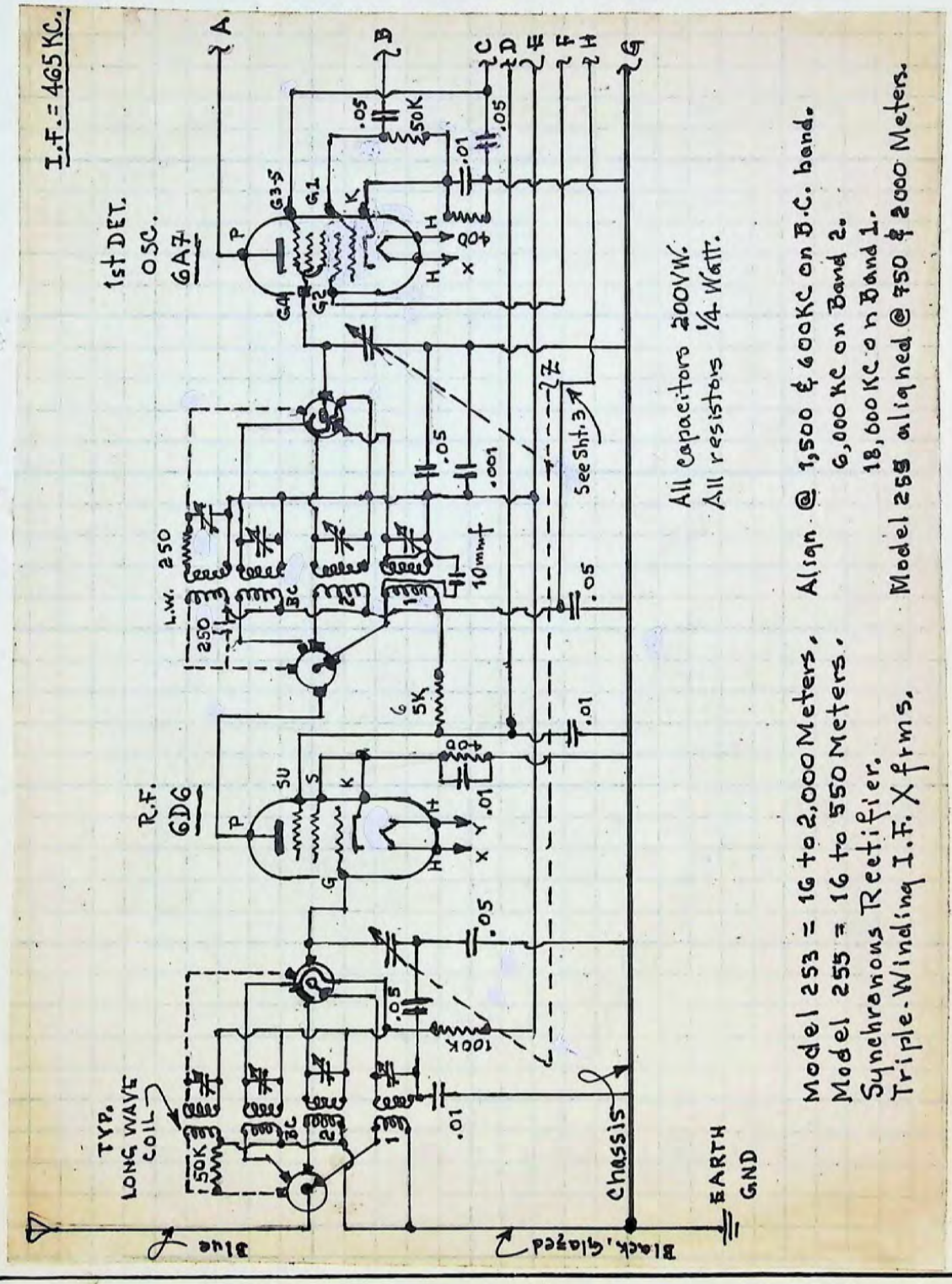
GELOSO

AMATEUR TRANSMITTER

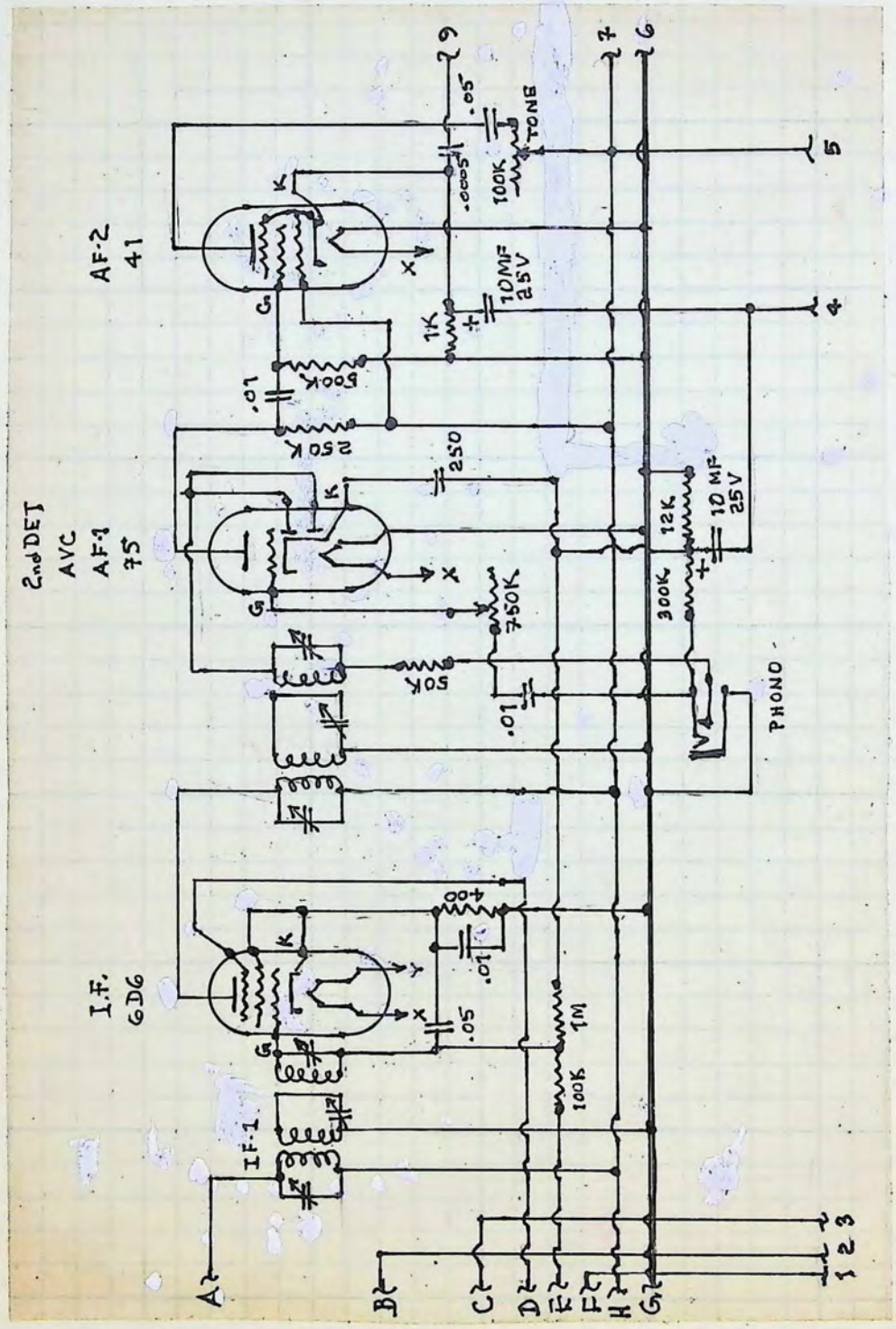
MILAN, ITALY

* * *
* *

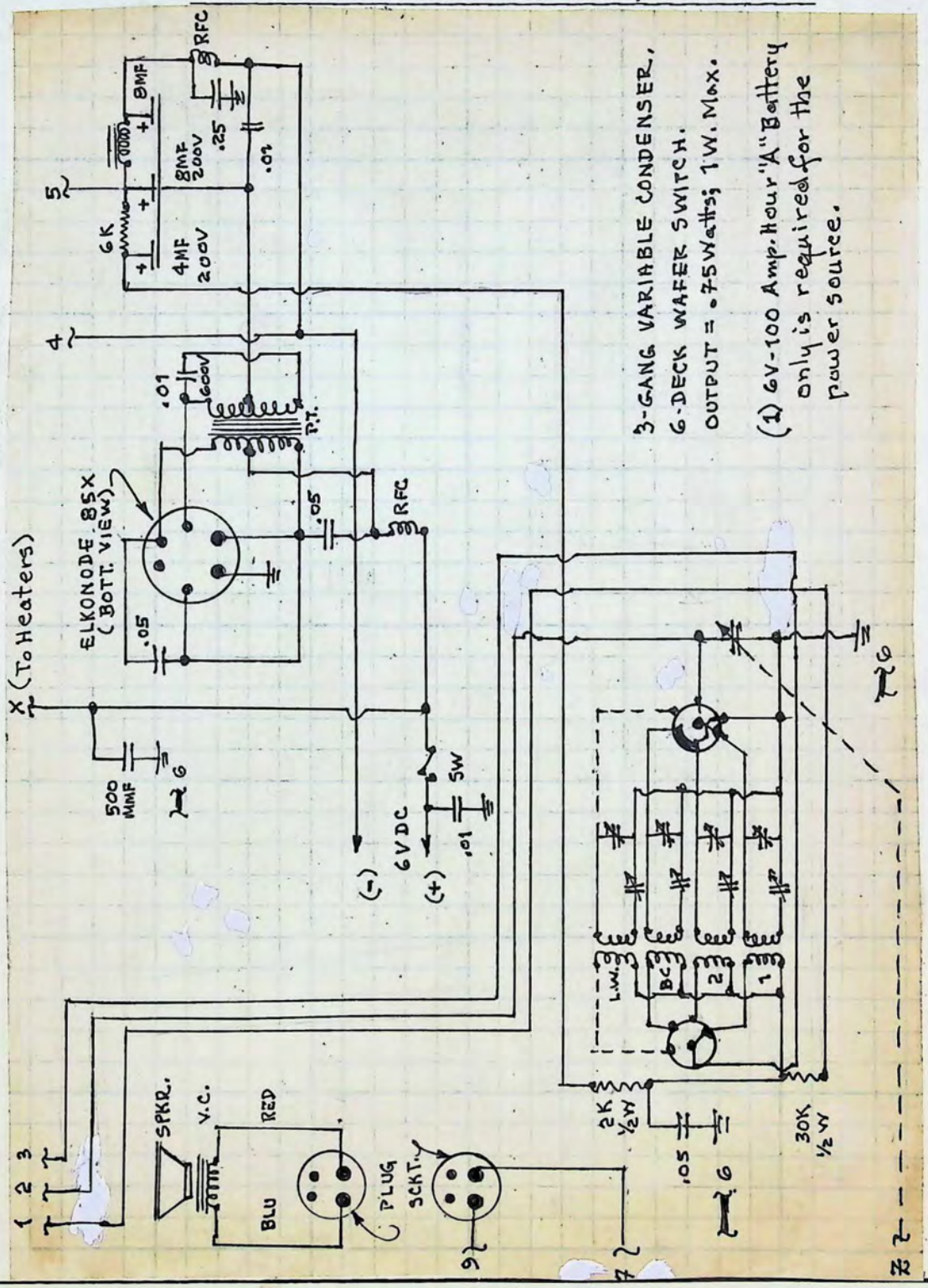
PILOT 6V EUROPEAN MODELS 253 & 255, 1936: Sht. 1



PILOT 6V EUROPEAN MODELS 253 & 255, 1936: Sht. 2



PILOT 6V EUROPEAN MODELS 253 & 255, 1936: Sht. 3



NOTES

Beyond Rider!

The author and the publishers take pleasure in announcing that Howard W. Granoff has been selected as the exclusive distributor for United States sales of these unique Sketch-Books and Monographs, and other related writings of the author - D.H.MOORE.

Comments and suggestions from readers of these dedicated works are always welcome, and will be given an immediate hearing, with an eye to improving future editions. While these unique Sketch-Books and Monographs are the labour of one man, the vintage radio hobby remains, as with any legitimate hobby, a shared enthusiasm. These works, then, are a sharing of one man's affection for vintage radio.

Olde Tyme Radio Co.

2445 LYTTONSVILLE RD.

SILVER SPRING, MD.-20910

(301) 585-8776

OTHER PUBLICATIONS AVAILABLE

THE VINTAGE RADIO IDENTIFICATION SKETCH-BOOKS of D.H.MOORE:

Vol. I	- *INTRODUCTORY ESSAYS*	$23.50
Vol. II	- *BROADCAST RECEIVERS*	49.95 (2 Vol.)
Vol. III	- *SHORT-WAVE RECEIVERS*	23.50
Vol. IV	- *POWER UNITS & AMPLIFIERS*	23.50
Vol. V	- *HARDWARE & ACCESSORIES*	23.50
Vol. VI	- *EARLY TEST EQUIPMENT*	20.00
Vol. VII	- *GENERAL TECHNICAL DATA*	23.50
Vol. VIII	- *THE EARLY YEARS: 1910-1925*	23.50

SPECIALTY PUBLICATIONS:

THE RCA CATACOMBS: A Practical Treatise	$16.50
THE MYSTERIOUS REFLEX	22.50
RESISTANCE-COUPLED AF AMPLIFIERS	15.00
SUPER-HETS OF THE TWENTIES	26.95

MONOGRAPHS ON INDIVIDUAL MARQUES: ($16.50, All Titles.)

PILOT	*BREMER-TULLY*	*ULTRADYNE*
SCOTT (Early)	*INFRADYNE*	*STROBODYNE*
REMLER/BEST	*VICTOREEN*	*SILVER-MARSHALL*
SARGENT-RAYMENT	*BROWNING-DRAKE*	*NAT'L./HAMMARLUND*

Other MONOGRAPHS are in preparation and will be announced.
Prices subject to change without notice.

For additional information telephone - write to the publishers or OLDE TYME RADIO COMPANY, 2445 Lyttonsville Road, Silver Spring, Maryland - 20910.

The Editorial Group, Ltd.

D H MOORE, A D I
DIRECTOR

"Specialists In Technical Documentations"

P O BOX 521
PALO ALTO, CALIF
94302